Form 3160-3 (August 1999)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0136

Expires November 30, 2000

6. If Indian, Allottee or Tribe Name

5. Lease Serial No.

UTU-0463

		and the second s		<u> </u>		
1a. Type of Work: X DRILL	7. If Unit or CA Agreement, Name and No.					
	UNIT #891008900A					
<u></u>				8. Lease Name and Well No.		
b. Type of Well: Oil Well X Gas Well O	Other	Single Zone	Multiple Zone	NBU 922-30L-T		
2. Name of Operator				9. API Well No.	<i>y</i> , -	
KERR McGEE OIL & GAS ONSHORE LP				43047-39	540	
3A. Address		3b. Phone No. (include area co	de)	10. Field and Pool, or Explor	atory	
1368 SOUTH 1200 EAST VERNAL, UT 8407	78	(435) 781-7024		NATURAL BUTTES		
4. Location of Well (Report location clearly and in accordan	nce with	any State requirements.*)	. /	11. Sec., T., R., M., or Blk, a	nd Survey or Area	
At surface NW/SW 2106'FSL, 817'FWL	6291	46K 40.00565	•		•	
At proposed prod. Zone	442	12714 -109.4	86988	LOT 3, SEC. 30, T9S, R22E		
14. Distance in miles and direction from nearest town or post	t office*			12. County or Parish	13. State	
16.5 +/- MILES SOUTH OF OURAY, UTAH				UINTAH	UTAH	
15. Distance from proposed*		16. No. of Acres in lease	17. Spacing Unit de	dicated to this well	.!	
location to nearest property or lease line, ft. 817'			, ,			
(Also to nearest drig. unit line, if any)		551.44	40.00			
18. Distance from proposed location* to nearest well, drilling, completed, REF	ER TO	19. Proposed Depth	20. BLM/BIA Bond	No. on file		
applied for, on this lease, ft.	B000291					
21. Elevations (Show whether DF, KDB, RT, GL, etc.)		22. Approximate date work wi	 1_ctant*	23. Estimated duration		
4973'GL	25. Estimated duration					
		24. Attachments	·	the transfer of the transfer o		
						
The following completed in accordance with the requirement	e of One	hore Oil and Gas Order No. 1 st	nall he attached to this	form:		

- 1. Well plat certified by a registered surveyor.
- 2. A Drilling Plan.
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office.
- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification.
- 6. Such other site specific information and/or plans as may be required by the authorized office.

25. Strobus Till Mullion	Name (Printed/Typed)	Date 8/16/2007
SENIOR LAND ADMIN SPECIALIST	Section 1.	
Approved by Signardie	Name (Printed/Typed) G. HILL	Date 08-29-07
Title	OfficENVIRONMENTAL MANAGER	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

Federal Approval of this Action is Necessary

RECEIVED AUG 2 0 2007

DIV. OF OIL, GAS & MINING

T9S, R22E, S.L.B.&M. 1977 Brass Cap 0.4' High, E-W 1977 Brass Cap, Fenceline, Mound E-W Fence, Pile of Stones, Steel of Stones S89°35'W - 2201.76' (G.L.O.) N89'59'W - 2667.72' (G.L.O.) (Meas. Lot 1 2639. S00.05,77"E NOO'00'40"W Lot 2 Alum. Cap Marked Stone Brass Cap NBU #922-30L-T 817 (Meas.) Elev. Ungraded Ground = 4973 Lot 3 2639.83 2641.72 NO0310"W NOO'OO'41"W Lot 4 1977 Brass Cap. 0.4' High, Pile of Set Stone N89°48'53"E - 2234.34' (Meas.) N89°49'17"E - 2629.89' (Meas.) 1977 Brass Cap, 5/8" Rebar 0.4' High, Pile of Stones LEGEND: (NAD 83) SCALE LATITUDE = $40^{\circ}00'19.88''$ (40.005522) LONGITUDE = $109^{\circ}29'15.86''$ (109.487739) = 90° SYMBOL PARTY (NAD 27) = PROPOSED WELL HEAD. LATITUDE = 40'00'20.01'' (40.005558) WEATHER = SECTION CORNERS LOCATED. $LONGITUDE = 109^{\circ}29'13.39'' (109.487053)$

Kerr McGee Oil & Gas Onshore LP

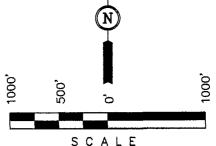
Well location, NBU #922-30L-T, located as shown in Lot 3 of Section 30, T9S, R22E, S.L.B.&M. Uintah County, Utah.

BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.



BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



SUALE

REGISTERED LAND SURVEYOR REGISTRATION NO. 161345

Kerr McGee Oil & Gas Onshore LP

Revised: 11-13-06

COLD

UINTAH ENGINEERING & LAND SURVEYING 85 SOUTH 200 EAST - VERNAL, UTAH 84078 (435) 789-1017

NBU #922-30L-T NW/SW SEC 30, T9S, R22E UINTAH COUNTY, UTAH UTU-0463

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers:

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1506'
Top of Birds Nest Water	1751'
Mahogany	2363'
Wasatch	4674'
Mesaverde	7302'
MVU2	8313'
MVL1	8845'
TD	9460'

2. Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

Substance	<u>Formation</u>	<u>Depth</u>	
	Green River	1506'	
	Top of Birds Nest Water	1751'	
	Mahogany	2363'	
Gas	Wasatch	4674'	
Gas	Mesaverde	7302'	
Gas	MVU2	8313'	
Gas	MVL1	8845'	
Water	N/A		
Other Minerals	N/A		

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

4. Proposed Casing & Cementing Program:

Please see the Natural Buttes Unit SOP.

5. <u>Drilling Fluids Program</u>:

Please see the Natural Buttes Unit SOP.

6. <u>Evaluation Program</u>:

Please see the Natural Buttes Unit SOP.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 9460' TD, approximately equals 5865 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3784 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please see Natural Buttes Unit SOP.

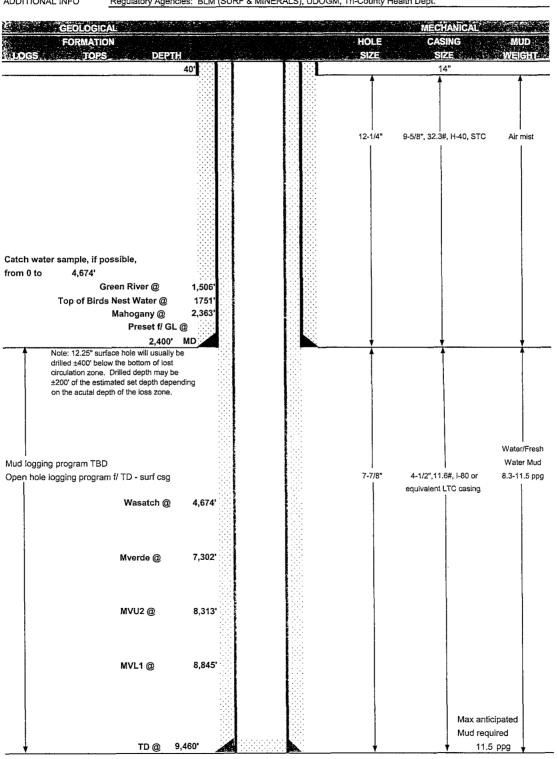
10. Other Information:

Please see Natural Buttes Unit SOP.



KERR-McGEE OIL & GAS ONSHORE LP **DRILLING PROGRAM**

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	_ DATE	August 1	6, 2007		
WELL NAME	NBU 922-30L-T	TD	9,460'	MD/TVD		
FIELD Natural Butt	es COUNTY Uintah STATE U	tah	ELEVATION	4,973' GL	KE	3 4,988'
SURFACE LOCATION NW/SW LOT 3, SEC. 30, T9S, R22E 2106'F			-		BHL	Straight Hole
	Latitude: 40.005522 Longitude: 109.4	87739				
OBJECTIVE ZONE(S)	Wasatch/Mesaverde					
ADDITIONAL INFO Regulatory Agencies: BLM (SURF & MINERALS), UDOGM, Tri-County Health Dept.						





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

									ESIGN FACT	ORS
;	SIZE		ERV,	1988	WT.	GR.	CPLG	BURST	COLLAPSE	TENSION
CONDUCTOR	14"		0-40'							
								2270	1370	254000
SURFACE	9-5/8"	0	to	2400	32.30	H-40	STC	0.63*****	1.22	3.74
								7780	6350	201000
PRODUCTION	4-1/2"	0	to	9460	11.60	I-80	LTC	2.18	1.12	2.10
							ļ			

¹⁾ Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)

(Burst Assumptions: TD = 11.5 ppg) .22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP

Burst SF is low but csg is much stronger than formation at 2000'. EMW @ 2000' for 2270# is 21.8 ppg or 1.13 psi/ft

CEMENT PROGRAM

	************	DESCRIPTION	eine		WIE STEE	建为但可能
SURFACE LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1		+ .25 pps flocele				
TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
		+ 2% CaCl + .25 pps flocele				
TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE		NOTE: If well will circulate water to s	urface, op	tion 2 will b	e utilized	. 1
Option 2 LEAD	1500	Prem cmt + 16% Gel + 10 pps gilsonite	170	35%	11.00	3.82
		+.25 pps Flocele + 3% salt BWOC				l l
TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
		+ .25 pps flocele	ļ			
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.	<u> </u>	15.60	1.18
			<u> </u>			
PRODUCTION LEAD	4,170'	Premium Lite II + 3% KCI + 0.25 pps	460	60%	11.00	3.38
		celloflake + 5 pps gilsonite + 10% gel			ĺ	
		+ 0.5% extender				İ
			i			
TAIL	5,290'	50/50 Poz/G + 10% salt + 2% gel	1480	60%	14.30	1.31
		+.1% R-3	<u> </u>			

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.	
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.	
		_

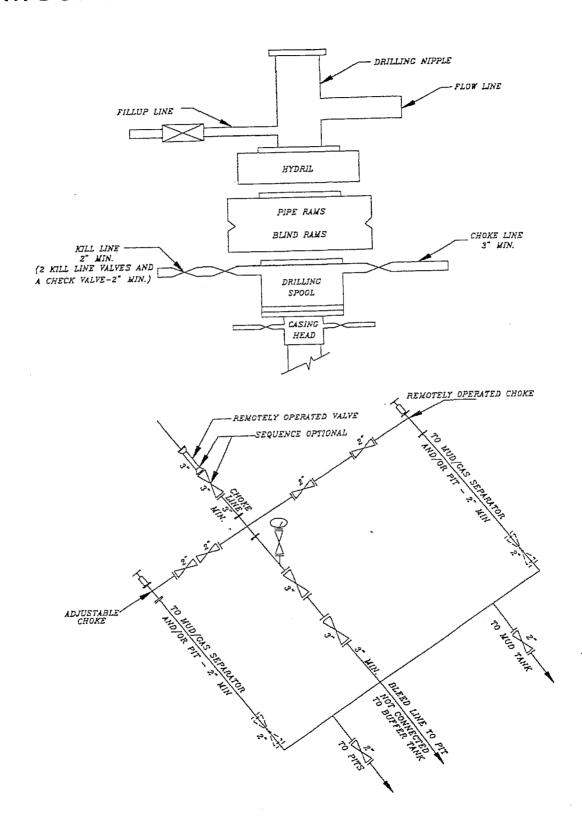
ADDITIONAL INFORMATION

	Test casing head to 750 psi a	after installing. Test surface casing to 1,500 p	psi prior to drilling out.		
	BOPE: 11" 5M with one ann	ular and 2 rams. Test to 5,000 psi (annular to	o 2,500 psi) prior to drilling out. Record on chart recorder &		
	tour sheet. Function test ran	ns on each trip. Maintain safety valve & insid	e BOP on rig floor at all times. Kelly to be equipped with upper		
	& lower kelly valves.				
	Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.				
	Most rigs have PVT Systems	s for mud monitoring. If no PVT is available, v	risual monitoring will be utililzed.		
			0.55		
LLING	ENGINEER:		DATE:		
		Brad Laney			
DRILLING	SUPERINTENDENT:		DATE:		
		Randy Bayne			

²⁾ MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

5M BOP STACK and CHOKE MANIFOLD SYSTEM



NBU #922-30L-T NW/SW SEC 30, T9S, R22E UINTAH COUNTY, UTAH UTU-0463

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. Existing Roads:

Refer to the attached location directions.

Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. Planned Access Roads:

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

Approximately 50' +/- of access road is proposed.. Please refer to the attached Topo Map B.

Approximately 200' +/- of re-route access road is proposed Please refer to Topo Map B.

3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

4. Location of Existing & Proposed Facilities:

Please see the Natural Buttes Unit SOP.

Approximately 600' +/- of 4" steel pipeline is proposed pipeline. Please refer to the attached Please refer to Topo Map D

Approximately 1000' +/- of 4" steel re-route pipeline is proposed pipeline. Please refer to the attached Please refer to Topo Map D

Variances to Best Management Practices (BMPs) Requested:

The pipeline shall be installed on surface within the access corridor for the well location. As a Best Management Practice (BMP), the pipeline would be buried within the access road corridor if possible. The construction of pipelines requires the corridor of 30 feet.

This exception to the BMP should be granted by the BLM Authorized Officer because indurated bedrock, such as sandstone, is at or within 2 feet of the surface and the soil has a poor history for successful rehabilitation.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The requested color is Carlsbad Canyon Brown (2.5Y 6/2), a non-reflective earthtone.

5. <u>Location and Type of Water Supply:</u>

Please see the Natural Buttes SOP.

6. Source of Construction Materials:

Please see the Natural Buttes SOP.

7. Methods of Handling Waste Materials:

Please see the Natural Buttes SOP.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E (Request is in lieu of filing Form 3160-5, after initial production).

8. Ancillary Facilities:

Please see the Natural Buttes SOP.

9. Well Site Layout: (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills, and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

A 20 mil reserve pit liner with felt will be used. As discussed at the on-site inspection.

Location size may change prior to the drilling of the well due to the current rig availability. If the proposed location is not large enough to accommodate the drilling rig. The location will be resurveyed and a form 3160-5 will be submitted.

10. Plans for Reclamation of the Surface:

Please see the Natural Buttes SOP.

When the pit is backfilled, the topsoil pile shall be spread on the location up to the rig anchor points. The location will be reshaped to the original contour to the extent possible. The following seed mixture will be used to reclaim the surface for interim reclamation using appropriate reclamation methods. A total of 12 lbs/acre will be used if the seeds are drilled (24 lbs/acre if the seeds are broadcast). The per acre requirements for *drilled* seed are:

Indian Ricegrass	10 lbs.
Needle and Thread Grass	10 lbs.
Crested Wheatgrass	2 lbs.

Operator shall call the BLM for the seed mixture when final reclamation occurs.

11. Surface Ownership:

The well pad and access road are located on lands owned by:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

12. Other Information:

A Class III Archaeological Survey Report, has been performed and will be submitted when report becomes available.

The paleontological survey has been performed and will be submitted when report becomes available.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying with the boundaries of the unit.

13. Lessee's or Operator's Representative & Certification:

Sheila Ucphego Senior Land Admin Specialist Kerr-McGee Oil & Gas Onshore LP 1368 South 1200 East Vernal, UT 84078 (435) 781-7024 Randy Bayne
Drilling Manager
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, UT 84078
(435) 781-7018

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under the terms and conditions of the lease for the operations conducted upon leased lands.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by BLM Nationwide Bold #WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by the Operator, its contractors, and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Sheila Upchego

8/16/2007

Date

Kerr-McGee Oil & Gas Onshore LP NBU #922-30L-T SECTION 30, T9S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 6.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY DIRECTION APPROXIMATELY 5.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 3.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST: TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 0.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 0.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 50' TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 50' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 49.6 MILES.

Kerr-McGee Oil & Gas Onshore LP

NBU #922-30L-T LOCATED IN UINTAH COUNTY, UTAH SECTION 30, T9S, R22E, S.L.B.&M.

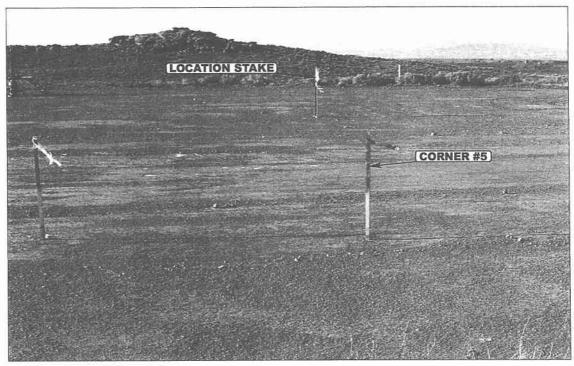


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY

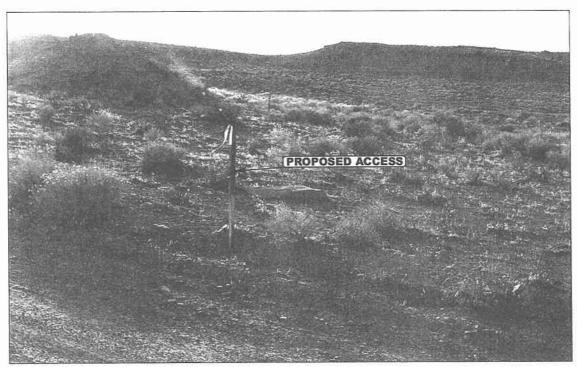


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: WESTERLY



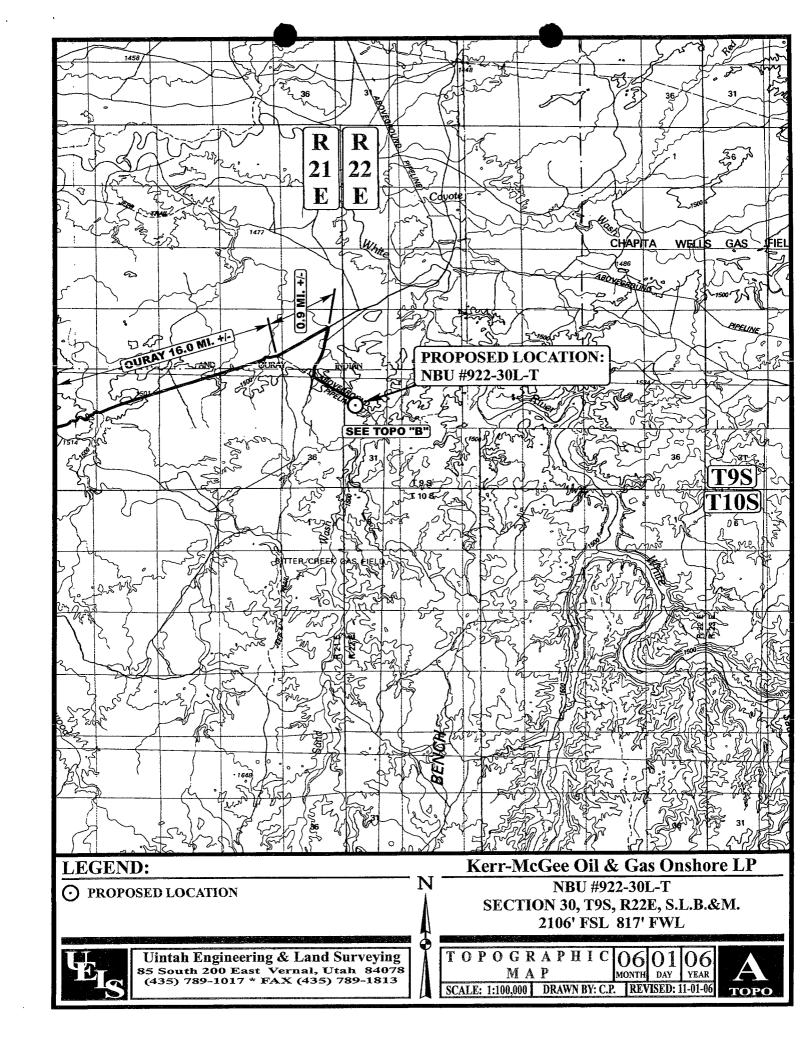
Uintah Engineering & Land Surveying 85 South 200 East Vernal, Utah 84078 435-789-1017 uels@uelsinc.com

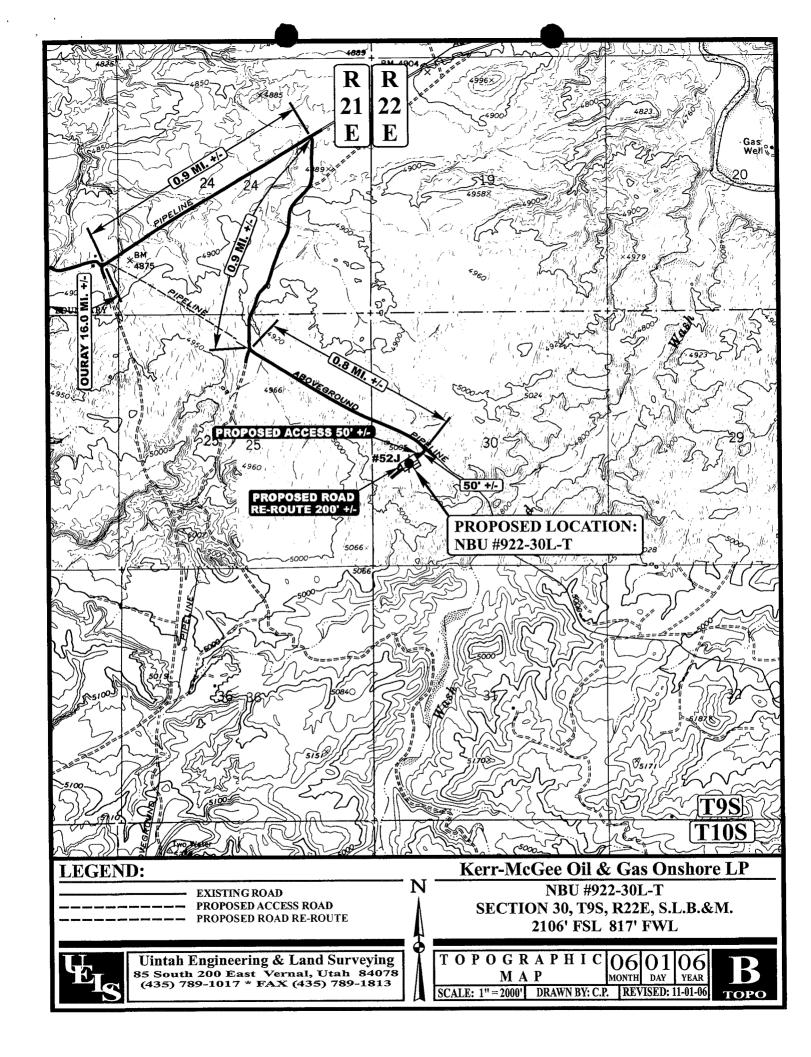
LOCATION PHOTOS

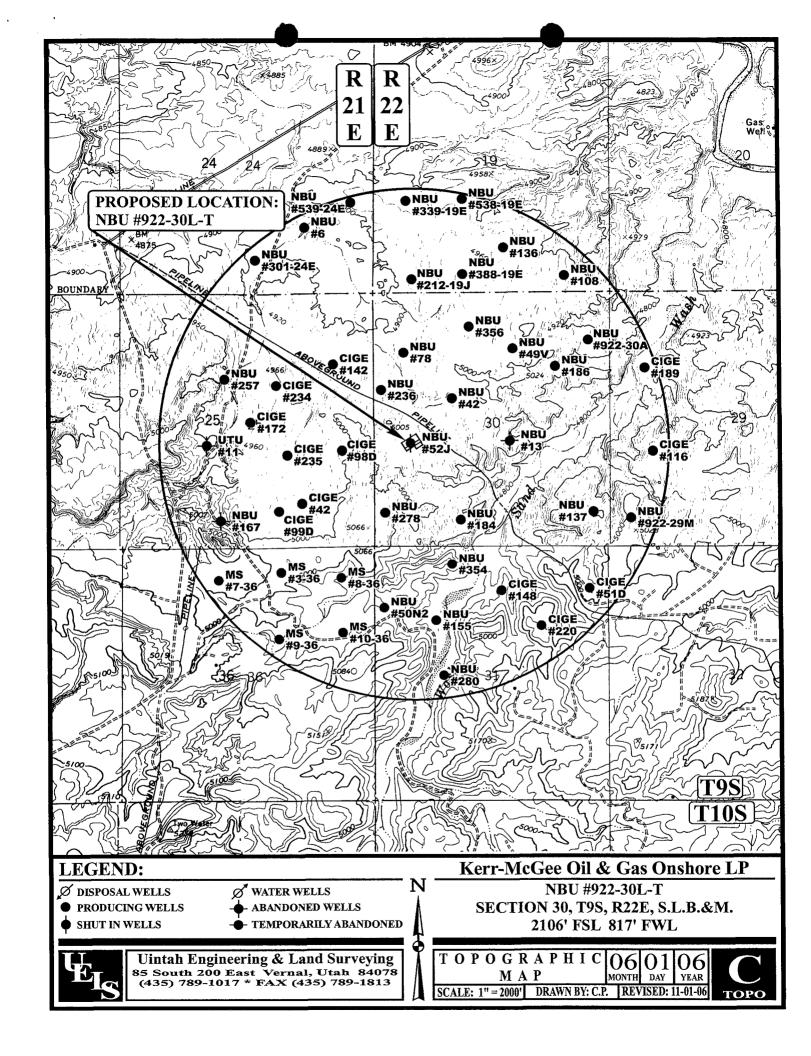
06 01 06 MONTH DAY YEAR

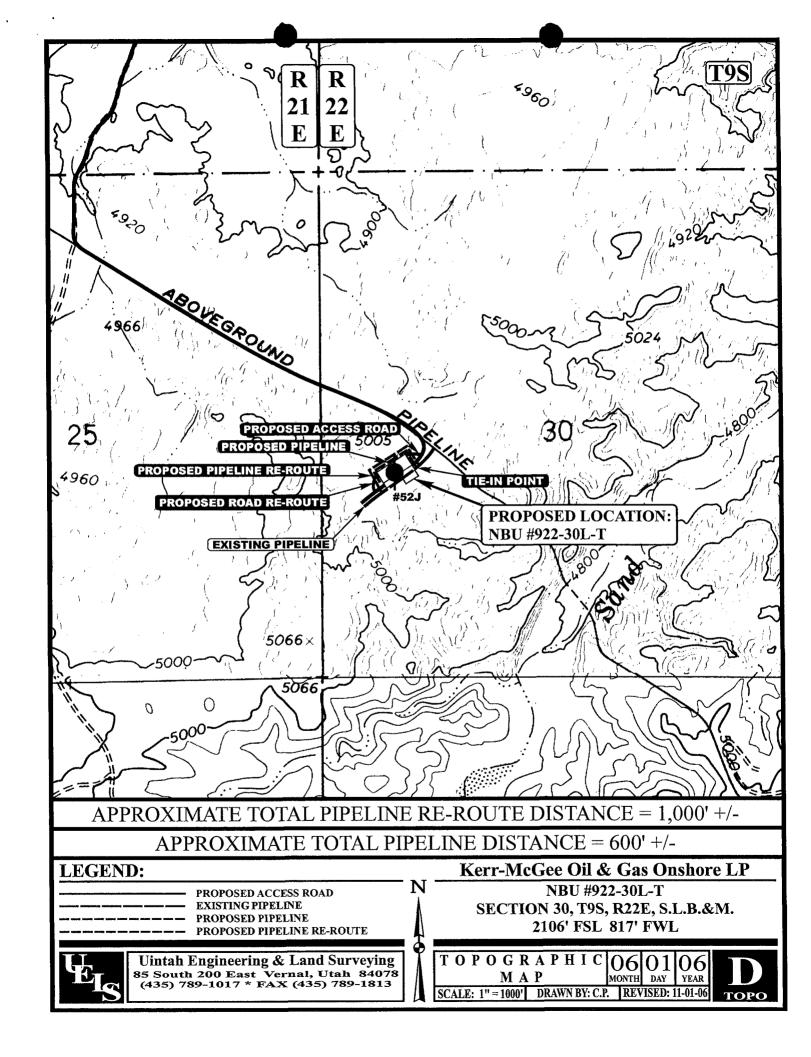
РНОТО

TAKEN BY: D.K. DRAWN BY: C.P. REVISED: 11-01-06









Kerr-McGee Oil & Gas Onshore LP

NBU #922-30L-T PIPELINE ALIGNMENT LOCATED IN UINTAH COUNTY, UTAH **SECTION 30, T9S, R22E, S.L.B.&M.**

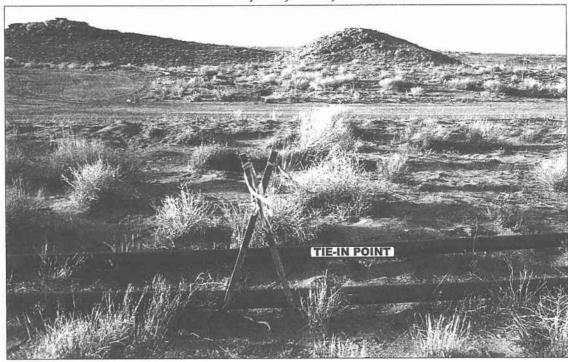


PHOTO: VIEW OF TIE-IN POINT

CAMERA ANGLE: NORTHWESTERLY

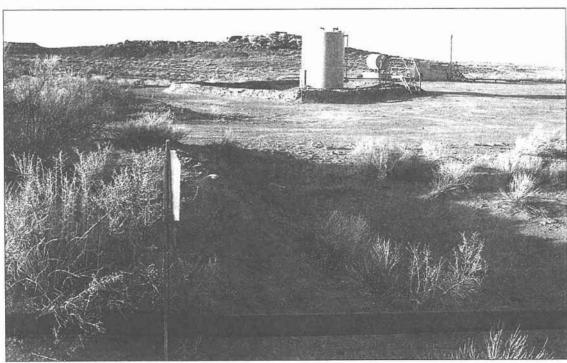


PHOTO: VIEW OF PIPELINE ALIGNMENT

CAMERA ANGLE: NORTHWESTERLY



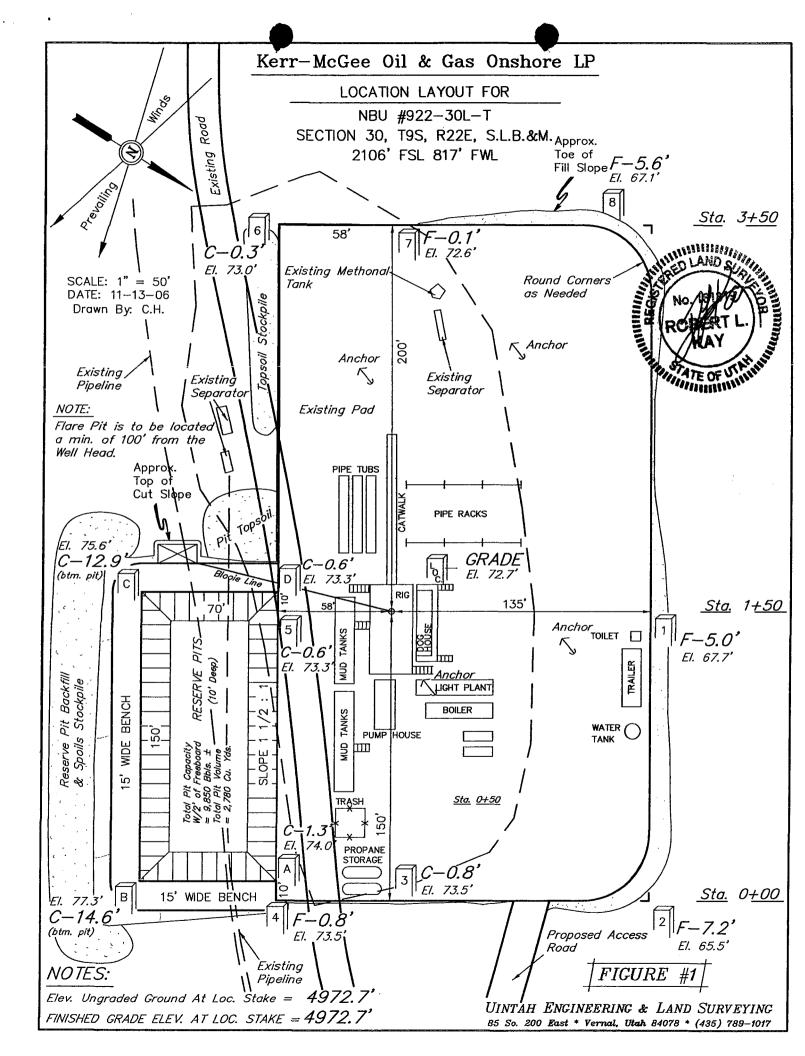
Uintah Engineering & Land Surveying 85 South 200 East Vernal, Utah 84078 435-789-1017 uels@uelsinc.com

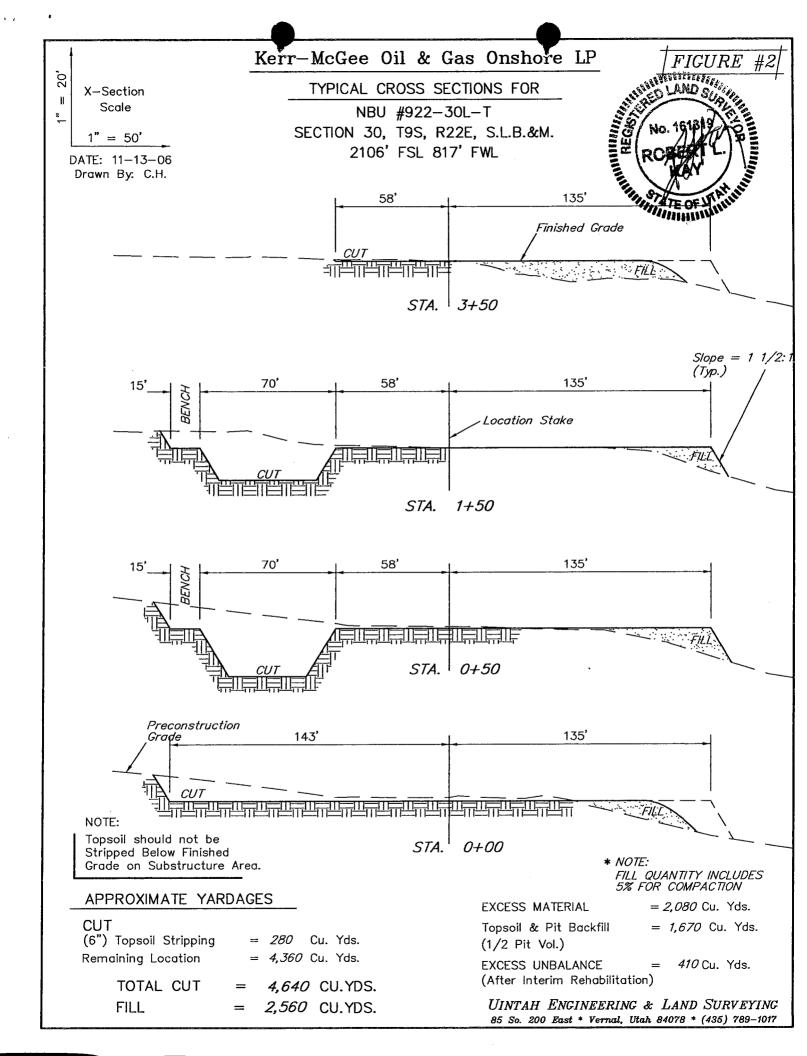
PIPELINE PHOTOS

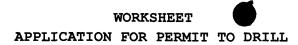
MONTH DAY YEAR

РНОТО

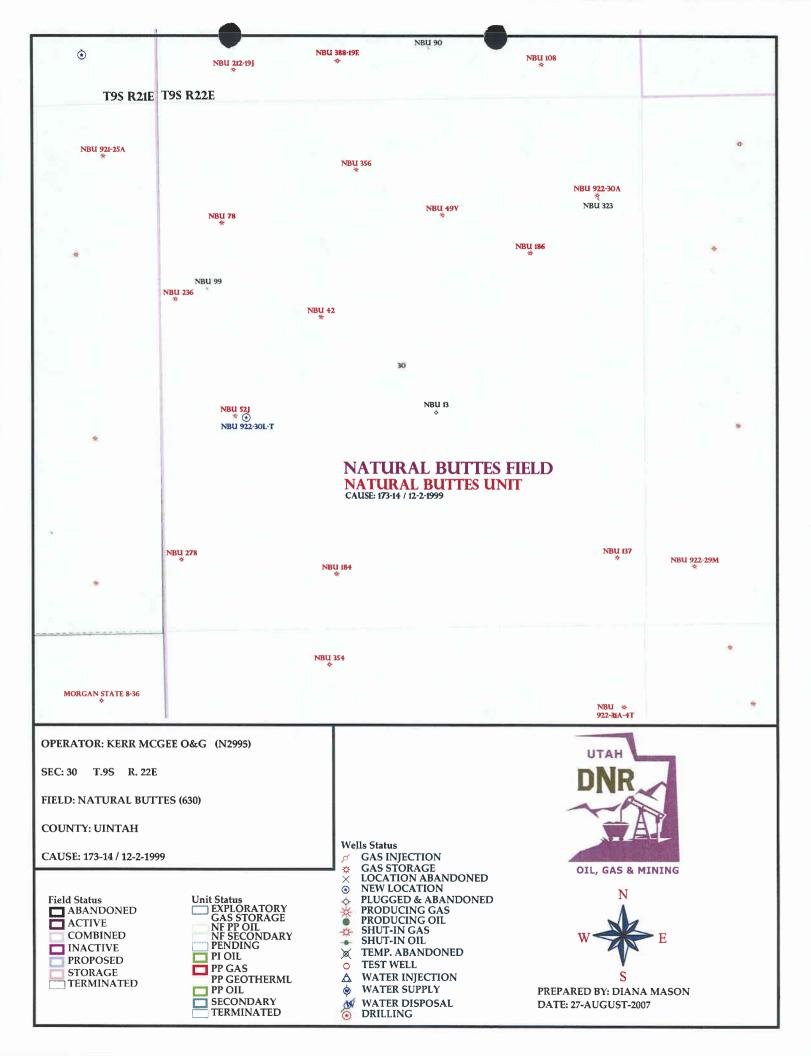
TAKEN BY: D.K. | DRAWN BY: C.P. | REVISED: 11-01-06







APD RECEIVED: 08/20/2007	API NO. ASSIGNED: 43-047-39540
WELL NAME: NBU 922-30L-T OPERATOR: KERR-MCGEE OIL & GAS (N2995) CONTACT: SHEILA UPCHEGO	PHONE NUMBER: 435-781-7024
PROPOSED LOCATION:	INSPECT LOCATN BY: / /
NWSW 30 090S 220E SURFACE: 2106 FSL 0817 FWL	Tech Review Initials Date
BOTTOM: 2106 FSL 0817 FWL	Engineering
COUNTY: UINTAH	Geology
LATITUDE: 40.00565 LONGITUDE: -109.4870 UTM SURF EASTINGS: 629146 NORTHINGS: 442927	Surface
LEASE TYPE: 1 - Federal LEASE NUMBER: UTU-0463 SURFACE OWNER: 1 - Federal RECEIVED AND/OR REVIEWED:	PROPOSED FORMATION: WSMVD COALBED METHANE WELL? NO LOCATION AND SITING:
Plat Bond: Fed[1] Ind[] Sta[] Fee[] (No. WYB000291) Potash (Y/N) Oil Shale 190-5 (B) or 190-3 or 190-13 Water Permit (No. 43-8496) RDCC Review (Y/N) (Date:) Fee Surf Agreement (Y/N) LIM Intent to Commingle (Y/N)	R649-2-3. Unit: NATURAL BUTTES R649-3-2. General Siting: 460 From Qtr/Qtr & 920' Between Wells R649-3-3. Exception Drilling Unit Board Cause No: 17314 Eff Date: 12-2-99 Siting: 460' N Uldry Cluntum, Tracis R649-3-11. Directional Drill
STIPULATIONS: 1- federal Reproved	HALE



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

August 29, 2007

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2007 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2007 within the Natural Buttes Unit, Uintah County, Utah.

API# WELL NAME LOCATION

(Proposed PZ Wasatch/MesaVerde)

43-047-39540 NBU 922-30L-T Sec 30 T09S R22E 2106 FSL 0817 FWL 43-047-39542 NBU 1021-14B Sec 14 T10S R21E 0439 FNL 2355 FEL 43-047-39543 NBU 1021-14F Sec 14 T10S R21E 2404 FNL 2387 FWL 43-047-39544 NBU 1021-150 Sec 15 T10S R21E 1127 FSL 2304 FEL 43-047-39545 NBU 1021-15K Sec 15 T10S R21E 2277 FSL 2041 FWL 43-047-39546 NBU 1021-15L Sec 15 T10S R21E 2188 FSL 0783 FWL 43-047-39547 NBU 1021-15F Sec 15 T10S R21E 2164 FNL 1915 FWL 43-047-39548 NBU 1021-15J Sec 15 T10S R21E 2361 FSL 2372 FEL 43-047-39563 NBU 1021-15P Sec 15 T10S R21E 1214 FSL 1262 FEL 43-047-39564 NBU 1021-22C Sec 22 T10S R21E 0902 FNL 2194 FWL 43-047-39549 NBU 1021-22K Sec 22 T10S R21E 2088 FSL 2006 FWL 43-047-39550 NBU 1021-22A Sec 22 T10S R21E 0668 FNL 0469 FEL 43-047-39551 NBU 1021-22L Sec 22 T10S R21E 2114 FSL 0725 FWL 43-047-39565 NBU 1021-22D Sec 22 T10S R21E 0769 FNL 0641 FWL 43-047-39566 NBU 1021-22E Sec 22 T10S R21E 2000 FNL 0860 FWL 43-047-39567 NBU 1021-23E Sec 23 T10S R21E 2201 FNL 0846 FWL 43-047-39569 NBU 1021-23B Sec 23 T10S R21E 0175 FNL 2391 FEL 43-047-39557 NBU 1021-23K Sec 23 T10S R21E 2021 FSL 2152 FWL 43-047-39558 NBU 1021-23N Sec 23 T10S R21E 0699 FSL 2196 FWL 43-047-39559 NBU 1021-23D Sec 23 T10S R21E 0065 FNL 0460 FWL 43-047-39560 NBU 1021-23L Sec 23 T10S R21E 2126 FSL 1227 FWL

```
      43-047-39570
      NBU
      1021-23C
      Sec
      23
      T10S
      R21E
      0567
      FSL
      2203
      FWL

      43-047-39572
      NBU
      1021-23J
      Sec
      23
      T10S
      R21E
      1906
      FSL
      2167
      FEL

      43-047-39574
      NBU
      1021-23M
      Sec
      23
      T10S
      R21E
      0233
      FSL
      0552
      FWL

      43-047-39575
      NBU
      1021-25J
      Sec
      25
      T10S
      R21E
      1621
      FSL
      1890
      FEL

      43-047-39561
      NBU
      1021-25K
      Sec
      25
      T10S
      R21E
      1848
      FSL
      2394
      FWL

      43-047-39579
      NBU
      1021-26E
      Sec
      26
      T10S
      R21E
      1706
      FNL
      0992
      FWL

      43-047-39580
      NBU
      1021-26D
      Sec
      26
      T10S
      R21E
      0695
      FNL
      0614
      FWL

      43-047-39578
      NBU
      1021-25F
      Sec
      25
      T10S
      R21E
      2477
      FNL
      2323
      FWL

      43-047-39541
      NBU
      1021-25F
```

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron
 Fluid Chron

MCoulthard:mc:8-29-07





MICHAEL R. STYLER Executive Director

Division of Oil Gas and Mining

JOHN R. BAZA
Division Director

August 29, 2007

Kerr-McGee Oil & Gas Onshore LP 1368 South 1200 East Vernal, Ut 84078

Re:

NBU 922-30L-T Well, 2106' FSL, 817' FWL, NW SW, Sec. 30, T. 9 South, R. 22 East,

Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-39540.

Sincerely.

Gil Hunt

Associate Director

pab Enclosures

cc:

Uintah County Assessor

Bureau of Land Management, Vernal Office



Operator:	Kerr-McGee Oil & Gas Onshore LP				
Well Name & Number	NBU 922-30L-T				
API Number:	43-047-39540 UTU-0463				
Location: NW SW	Sec. 30 T. 9 South	R 22 Fast			

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

• Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

• Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
- 5. In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.

	DEPARTMENT OF NATURAL RESOU	IDOEO		FORM 9	
	DIVISION OF OIL, GAS AND MI			ase designation and serial number: U-0463	
SUNDRY	6. IF I	NDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for proposals to drill no drill horizontal la	ew wells, significantly deepen existing wells below cu terals. Use APPLICATION FOR PERMIT TO DRILL	urrent bottom-hole depth, reenter plugged wells, or to form for such proposals.		T or CA AGREEMENT NAME:	
TYPE OF WELL OIL WELL				LL NAME and NUMBER: U 922-30L-T	
2. NAME OF OPERATOR: Kerr-McGee Oil & Gas On	shore, LP		i i	NUMBER: 4739540	
3. ADDRESS OF OPERATOR: P.O. Box 173779	Denver STATE CO ZIF	PHONE NUMBER: (720) 929-6226		ELD AND POOL, OR WILDCAT: tural Buttes Field	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2106' F	EQL 8 017' EW/				
POOTAGES AT SURFACE: 2100 T	SL & OTT FVVL		COUN	τγ: Uintah	
QTR/QTR, SECTION, TOWNSHIP, RANG	GE, MERIDIAN: NWSW 30 9S 2	22E	STATE	: UTAH	
11. CHECK APPR	ROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REP	ORT, O	R OTHER DATA	
TYPE OF SUBMISSION		TYPE OF ACTION			
NOTICE OF INTENT	ACIDIZE	DEEPEN		REPERFORATE CURRENT FORMATION	
(Submit in Duplicate)	ALTER CASING	FRACTURE TREAT		SIDETRACK TO REPAIR WELL	
Approximate date work will start:	CASING REPAIR	NEW CONSTRUCTION		TEMPORARILY ABANDON	
	CHANGE TO PREVIOUS PLANS	OPERATOR CHANGE		TUBING REPAIR	
	CHANGE TUBING	PLUG AND ABANDON		VENT OR FLARE	
SUBSEQUENT REPORT (Submit Original Form Only)	CHANGE WELL NAME	PLUG BACK		WATER DISPOSAL	
Date of work completion:	CHANGE WELL STATUS	PRODUCTION (START/RESUME)		WATER SHUT-OFF	
	COMMINGLE PRODUCING FORMATIONS	RECLAMATION OF WELL SITE	\checkmark	отнек: APD Extension	
	CONVERT WELL TYPE	RECOMPLETE - DIFFERENT FORMATION	N		
DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore, LP, respectfully requests a one year extension of this APD in order to complete drilling operations. Utah Division of Oil, Gas, and Mining initially approved this APD on August 29, 2007.					
	Approved Utah Divi Oil, Gas an	ision of			
	Date: OS- By: Les		ate: 🏂	IT TO OPERATOR 14 · ZOOS 15 S	
NAME (PLEASE PRINT) Kevin McIn	ityre	тітье Regulatory Ana	lyst I		

(This space for State use only)

RECEIVED AUG 1 2 2008

DATE 8/11/2008



Application for Permit to Drill Request for Permit Extension Validation

(this form should accompany the Sundry Notice requesting permit extension)

API: 4304739540 Well Name: NBU 922-30L-T Location: NWSW 2106' FSL & 817' FWL, Sec. 30, T9S, R22E Company Permit Issued to: Kerr-McGee Oil & Gas Onshore, LP Date Original Permit Issued: 8/29/2007							
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.							
Following is a checklist of some items related to the application, which should be verified.							
If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes □ No ☑							
Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes ☐ No ☑							
Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes□No☑							
Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes□No ☑							
Has the approved source of water for drilling changed? Yes□No☑							
Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes□No☑							
ls bonding still in place, which covers this proposed well? Yes ☑No ☐							
8/11/2008							
Signature Date							
Title: Regulatory Analyst I							
Representing: Kerr-McGee Oil & Gas Onshore, LP							

RECEIVED AUG 1 2 2008

	STATE OF UTAH		FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463		
SUNDF	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for proposition-hole depth, reenter plu DRILL form for such proposals.	sals to drill new wells, significantly deeper igged wells, or to drill horizontal laterals. I	n existing wells below current Use APPLICATION FOR PERMIT TO	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30L-T
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047395400000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	treet, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2106 FSL 0817 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWSW Section: 30	(P, RANGE, MERIDIAN:) Township: 09.0S Range: 22.0E Meridian	: S	STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPORT,	OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
7/31/2009	CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL
☐ DRILLING REPORT	☐ WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:
12. DESCRIBE PROPOSED OR CO	OMPLETED OPERATIONS. Clearly show all pe	ertinent details including dates, denths, v	olumes, etc.
Kerr-McGee Oil & Ga extension to this A	as Onshore, L.P. (Kerr-McGee PD for the maximum time allowith any questions and/or cor	e) respectfully requests an owed. Please contact the	Approved by the Utah Division of Oil, Gas and Mining
		D	ate: July 29, 2009
		В	y: Laggill
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	R TITLE Regulatory Analyst	
SIGNATURE N/A		DATE 7/28/2009	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047395400000

API: 43047395400000 Well Name: NBU 922-30L-T

Location: 2106 FSL 0817 FWL QTR NWSW SEC 30 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/29/2007

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that requ

informat uire revis	ion as submitted in the p sion. Following is a check	reviously list of so	/ approved ap me items rela	plication t ited to the	o drill, re application	mains va on, whic	alid and does h should be v	not verified.
	ted on private land, has ed? No	the owne	rship change	d, if so, ha	s the surf	ace agre	eement been	
	any wells been drilled in requirements for this loc				which wo	uld affe	ct the spacin	g or
	ere been any unit or other proposed well?			lace that o	could affe	ct the pe	ermitting or o	peratio
	there been any changes t the proposed location?			luding owr	nership, o	r rightof	- way, which	could
• Has th	e approved source of wa	ter for dr	illing change	d? 🕘 Ye	s 📵 No	•		
	here been any physical on the control of the contro						ich will requ No	ire a
• Is bon	ding still in place, which	covers th	nis proposed v	well? 🌘	Yes 🗍	No Uta	roved by t h Division as and Mir	of
nature:	Danielle Piernot	Date:	7/28/2009					
Title:	Regulatory Analyst Repres	senting:	KERR-MCGEE (OIL & GAS C	NSHOR ₽ ,	<u>te:</u>	July 29, 2009	ļ
						D W	Oll los (

Sig

	STATE OF UTAH				FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING				5.LEAS UTU-0	E DESIGNATION AND SERIAL NUMBER: 463
SUNDF	RY NOTICES AND REPORTS	5 ON	WELLS	6. IF IN	IDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deeper igged wells, or to drill horizontal laterals.				or CA AGREEMENT NAME: RAL BUTTES
1. TYPE OF WELL Gas Well					L NAME and NUMBER: 22-30L-T
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.				NUMBER: 395400000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHC treet, Suite 600, Denver, CO, 80217 3779	ONE NUI 9	MBER: 720 929-6007 Ext		D and POOL or WILDCAT: RAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2106 FSL 0817 FWL				COUNT	
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWSW Section: 30	(P, RANGE, MERIDIAN: O Township: 09.0S Range: 22.0E Meridian	n: S		STATE: UTAH	
11. CHE	CK APPROPRIATE BOXES TO INDICA	ATE NA	TURE OF NOTICE, REPORT,	OR OTI	HER DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
	☐ ACIDIZE		TER CASING		CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	□ сн	IANGE TUBING		CHANGE WELL NAME
8/28/2010	CHANGE WELL STATUS	□ co	MMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN	☐ FR	ACTURE TREAT		NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	☐ PL	UG AND ABANDON		PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RE	CLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	□ sı	DETRACK TO REPAIR WELL		TEMPORARY ABANDON
	☐ TUBING REPAIR	□ ve	NT OR FLARE		WATER DISPOSAL
DRILLING REPORT	☐ WATER SHUTOFF	□ sı	TA STATUS EXTENSION	1	APD EXTENSION
Report Date:	☐ WILDCAT WELL DETERMINATION	□ от	THER	отн	ED.
12 222222					<u></u>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you. Utah Division of Oil, Gas and Mining					
			D	ate:_	August 31, 2010
			В	y: <u> &</u>	-00 GILL
					20
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156		TITLE Regulatory Analyst		
SIGNATURE N/A			DATE 8/27/2010		



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047395400000

API: 43047395400000 Well Name: NBU 922-30L-T

Location: 2106 FSL 0817 FWL QTR NWSW SEC 30 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/29/2007

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that requ

	tion as submitted in t sion. Following is a c						ed.	
	ated on private land, ed? 🔵 Yes 🌘 No		ership changed, if	so, has the s	surface a	greement been		
	 Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No 							
	nere been any unit or s proposed well?			that could a	iffect the	e permitting or opera	tion	
	there been any chang the proposed locatio			ng ownership	o, or righ	tof- way, which coul	d	
• Has th	ne approved source o	f water for d	rilling changed?(Yes 📵	No			
	there been any physi Je in plans from what							
• Is bor	nding still in place, w	nich covers t	his proposed well	? 📵 Yes 🤅] No ເ	pproved by the Itah Division of , Gas and Mining		
nature:	Danielle Piernot		8/27/2010					
Title:	Regulatory Analyst Re	presenting:	KERR-MCGEE OIL &	GAS ONSHOR	@ate:_	August 31, 2010		
	-	_			P	all his m		

Sig

By: Dolly

Sundry Number: 14420 API Well Number: 43047395400000

	STATE OF UTAH		FORM 9		
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463				
SUNDF	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	sals to drill new wells, significantly deepen exi gged wells, or to drill horizontal laterals. Use		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30L-T		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047395400000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHONE I treet, Suite 600, Denver, CO, 80217 3779	NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2106 FSL 0817 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWSW Section: 30	(P, RANGE, MERIDIAN:) Township: 09.0S Range: 22.0E Meridian: S		STATE: UTAH		
11. CHE	CK APPROPRIATE BOXES TO INDICATE I	NATURE OF NOTICE, REPORT,	OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	☐ ACIDIZE ☐	ALTER CASING	CASING REPAIR		
✓ NOTICE OF INTENT Approximate date work will start:	☐ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	✓ CHANGE WELL NAME		
4/15/2011	☐ CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN ☐	FRACTURE TREAT	☐ NEW CONSTRUCTION		
Dute of tronk completions	☐ OPERATOR CHANGE ☐	PLUG AND ABANDON	☐ PLUG BACK		
SPUD REPORT	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	U TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	□ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
	□ WILDCAT WELL DETERMINATION □	OTHER	OTHER:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The Operator respectfully requests to change the well name for this well. The new well name will be NBU 922-30L1CS. Thank you. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY					
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst			
SIGNATURE N/A		DATE 4/15/2011			

Sundry Number: 16654 API Well Number: 43047395400000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9
	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463		
SUNDF	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	sals to drill new wells, significantly deepen ex igged wells, or to drill horizontal laterals. Use		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30L1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047395400000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHONE treet, Suite 600, Denver, CO, 80217 3779	NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2085 FSL 0783 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWSW Section: 30	P, RANGE, MERIDIAN: D Township: 09.0S Range: 22.0E Meridian: S		STATE: UTAH
11. CHE	CK APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPORT	, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
Kerr-McGee Oil & G extension to this A	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION DMPLETED OPERATIONS. Clearly show all pertin as Onshore, L.P. (Kerr-McGee) in APD for the maximum time allow with any questions and/or comm	respectfully requests an yed. Please contact the ments. Thank you.	
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 7/12/2011	

Sundry Number: 16654 API Well Number: 43047395400000



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047395400000

API: 43047395400000 **Well Name:** NBU 922-30L1CS

Location: 2085 FSL 0783 FWL QTR NWSW SEC 30 TWNP 090S RNG 220E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/29/2007

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

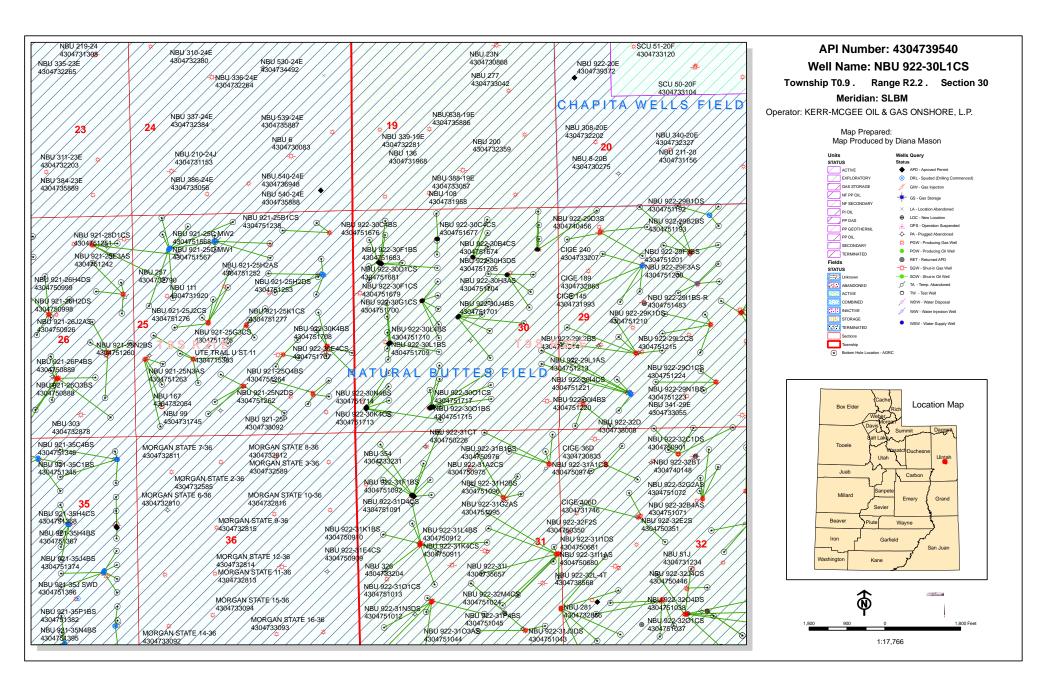
	ated on private land, has the ed? 📗 Yes 📵 No	e ownership changed, if so, has the s	urface agreement been
	any wells been drilled in the requirements for this locati	e vicinity of the proposed well which on? Yes No	would affect the spacing or
	here been any unit or other as proposed well?	agreements put in place that could a No	ffect the permitting or operation
	there been any changes to t the proposed location?	the access route including ownership Yes No	, or rightof- way, which could
• Has tl	he approved source of water	r for drilling changed? 🔵 Yes 🍺	No
		nges to the surface location or accesiscussed at the onsite evaluation?	
• Is bo	nding still in place, which co	vers this proposed well? 🌘 Yes 🤇) No
Signature:	Gina Becker	Date: 7/12/2011	

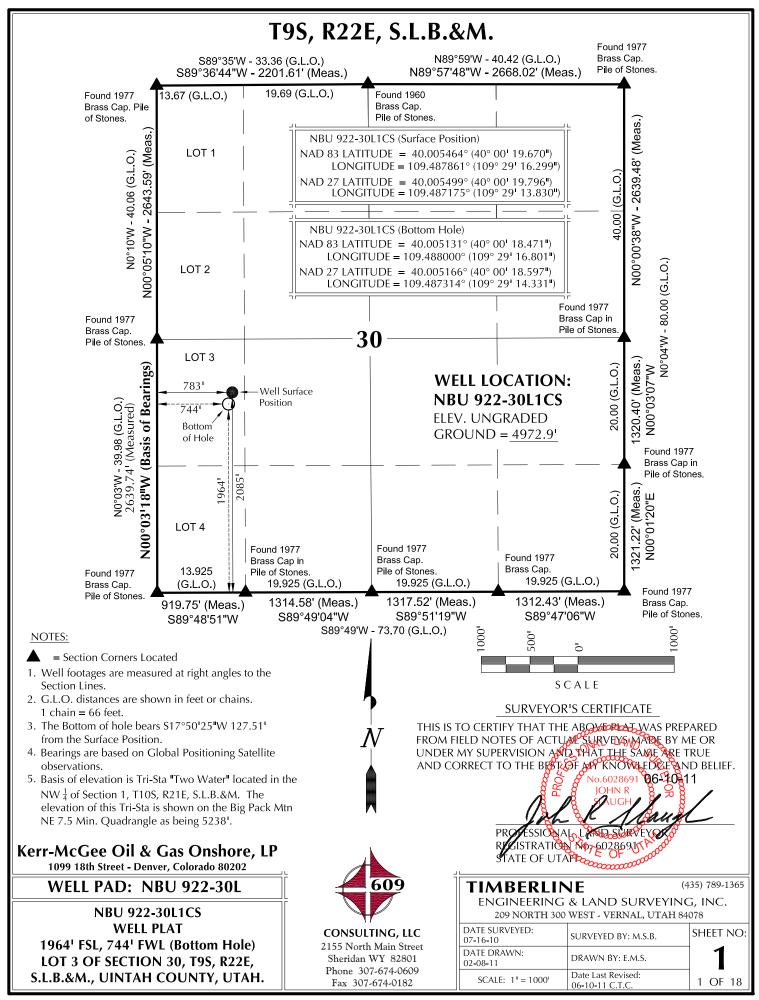
Title: Regulatory Analyst II Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Sundry Number: 1-6407a Approval of this: 43047395400000

Action is Necessary

	STATE OF UTAH	_	FORM 9		
	DEPARTMENT OF NATURAL RESOURCE: DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463		
SUND	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	sals to drill new wells, significantly deepen ϵ ugged wells, or to drill horizontal laterals. Us		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30L1CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONS	HORE, L.P.		9. API NUMBER: 43047395400000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th S	PHON Street, Suite 600, Denver, CO, 80217 3779	TE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2106 FSL 0817 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSHI Qtr/Qtr: NWSW Section: 30	IP, RANGE, MERIDIAN: 0 Township: 09.0S Range: 22.0E Meridian:	S	STATE: UTAH		
11. CHE	CK APPROPRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPORT,	OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	☐ ACIDIZE	ALTER CASING	CASING REPAIR		
Approximate date work will start:	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME		
7/6/2011	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE		
SUBSEQUENT REPORT	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION		
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK		
	☐ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON		
	☐ TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	APD EXTENSION		
Report Date:	☐ WILDCAT WELL DETERMINATION	OTHER	OTHER:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The above captioned well location was originally approved by UDOGM on 08/27/2007. Kerr-McGee Oil & Gas, L.P. (Kerr-McGee) has revised the Survey Plats, the Drilling Program, the Directional Drilling Plan and the Surface Use Plan of Operations. Kerr-McGee respectfully requests authorization to change the originally permitted straight hole wellbore (2106′ FSL & 817′ FWL) to a directional well. The new surface hole location will be 2085′ FSL & 783′ FWL and the bottom hole location will be 1964′ FSL & 744′ FWL. Please see the Date: attachment reflecting the requested changes. Thank you. By:					
NAME (PLEASE PRINT) Laura Abrams	PHONE NUMBER 720 929-6356	TITLE Regulatory Analyst II			
SIGNATURE		DATE			
N/A		7/5/2011			



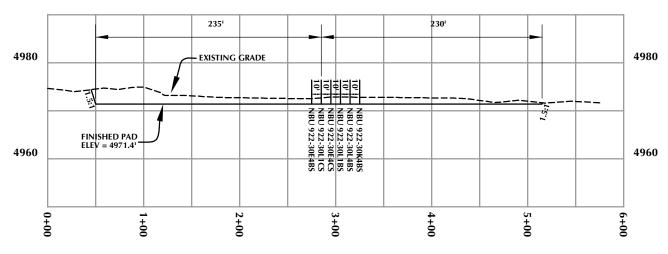


Jul. 05, 2011

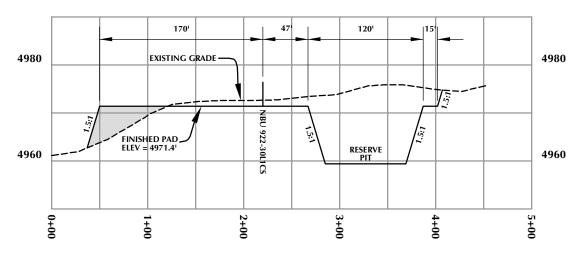
REVISED:

8 OF 18





CROSS SECTION A-A'



Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-30L

WELL PAD - CROSS SECTIONS NBU 922-30K4BS, NBU 922-30L4BS, NBU 922-30L1BS, NBU 922-30E4CS, NBU 922-30L1CS & NBU 922-30E4BS LOCATED IN SECTION 30, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH

CROSS SECTION B-B'

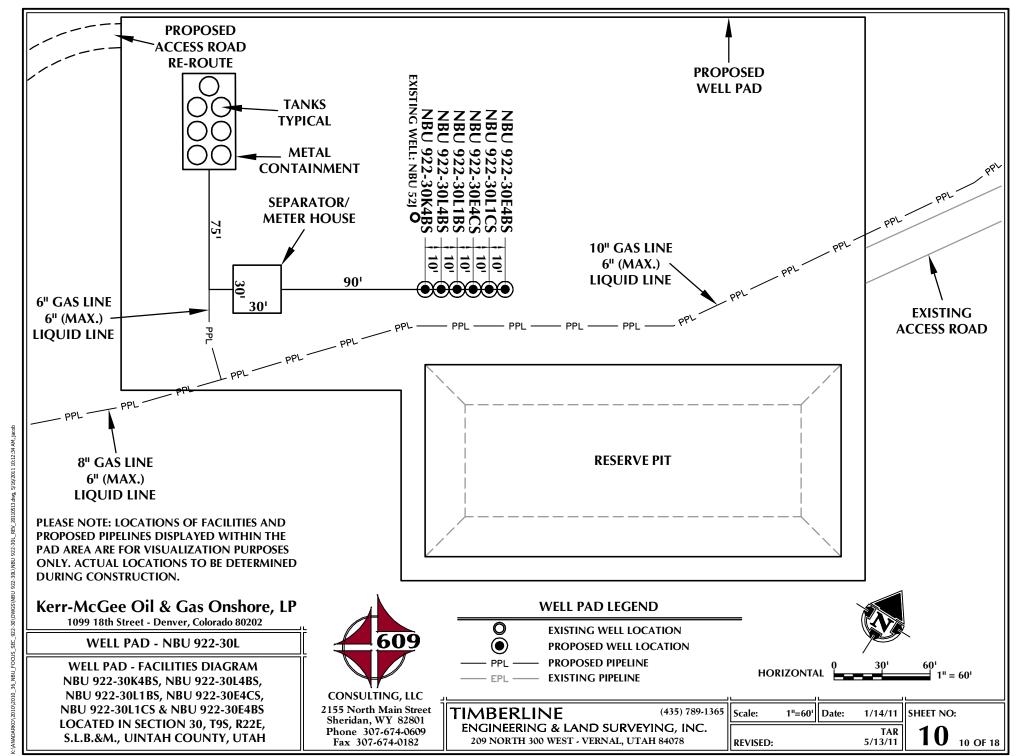


CONSULTING, LLC 2155 North Main Street Sheridan, WY 82801 Phone 307-674-0609 Fax 307-674-0182

HORIZONTAL	50	100
VERTICAL (10	20 1" = 20'

TIMBERLINE (435) 789-1365 Sca
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

65	Scale:	1"=100"	Date:	1/14/11	SHEET NO:	
	REVISED:			TAR 5/13/11	9	9 OF 18



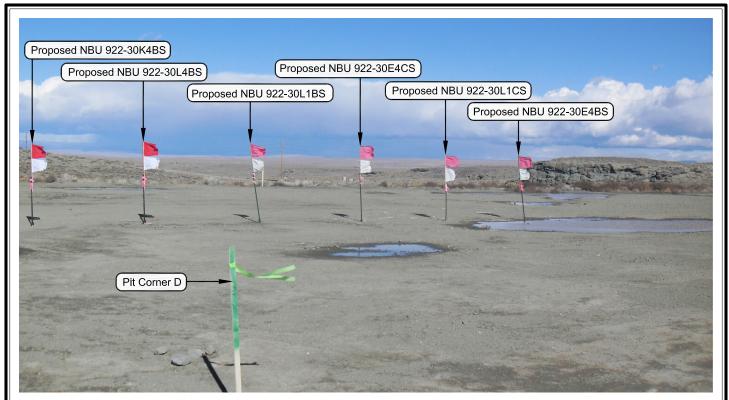


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHERLY

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-30L

LOCATION PHOTOS NBU 922-30K4BS, NBU 922-30L4BS, NBU 922-30L1BS, NBU 922-30E4CS, NBU 922-30L1CS & NBU 922-30E4BS LOCATED IN SECTION 30, T9S, R22E, S.L.B.&M., UINTAH COUNTY, UTAH.



CONSULTING, LLC 2155 North Main Street

Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

TIMBERLINE

(435) 789-1365

ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

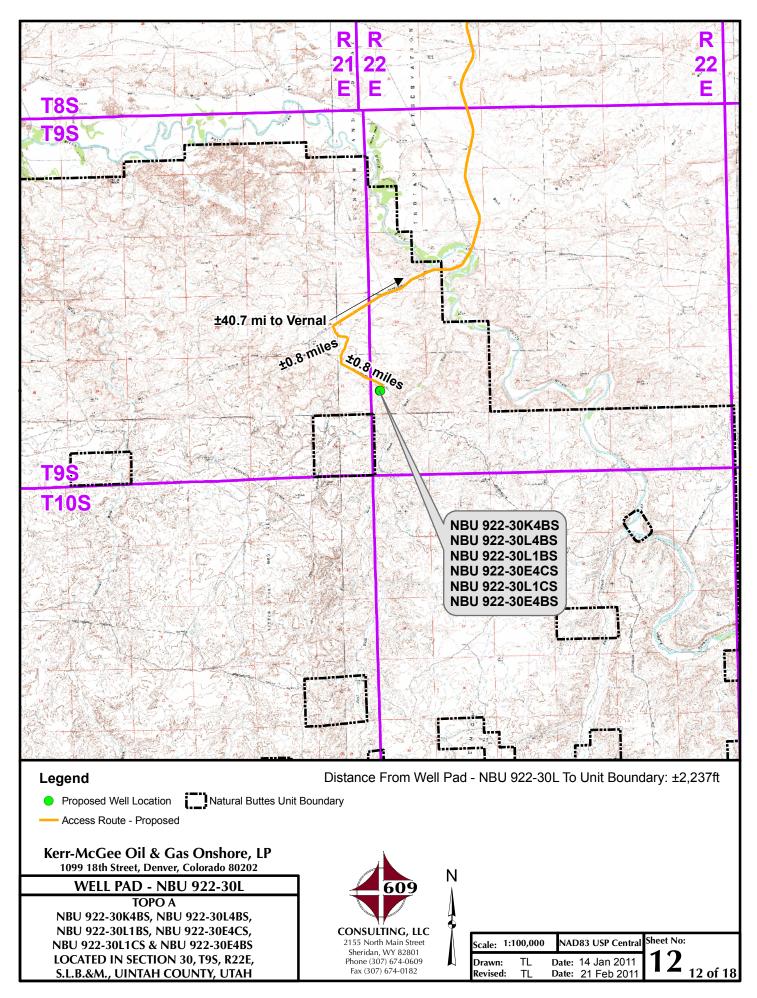
DATE PHOTOS TAKEN: 07-16-10	PHOTOS TAKEN BY: M.S.B.	SHEET NO:
DATE DRAWN: 07-28-10	DRAWN BY: K.O.B.	11
Date Last Revised: 02-08-1	1 E.M.S.	11 OF 18

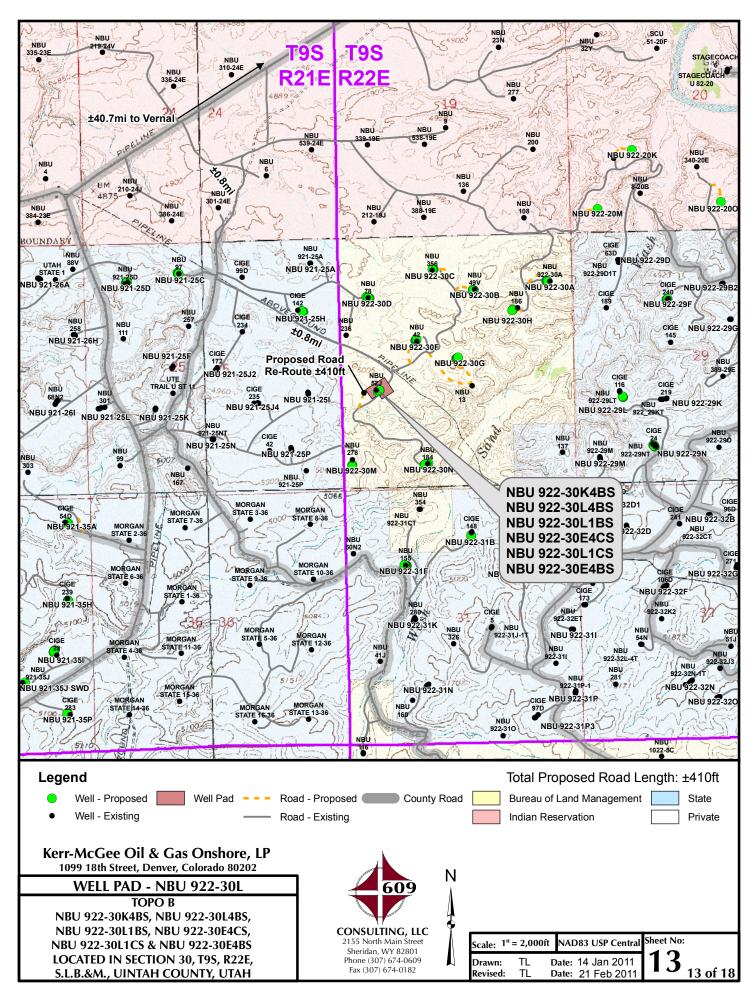
Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 922-30L WELLS – NBU 922-30K4BS, NBU 922-30L4BS, NBU 922-30L1BS, NBU 922-30E4CS, NBU 922-30L1CS & NBU 922-30E4BS Section 30, T9S, R22E, S.L.B.&M.

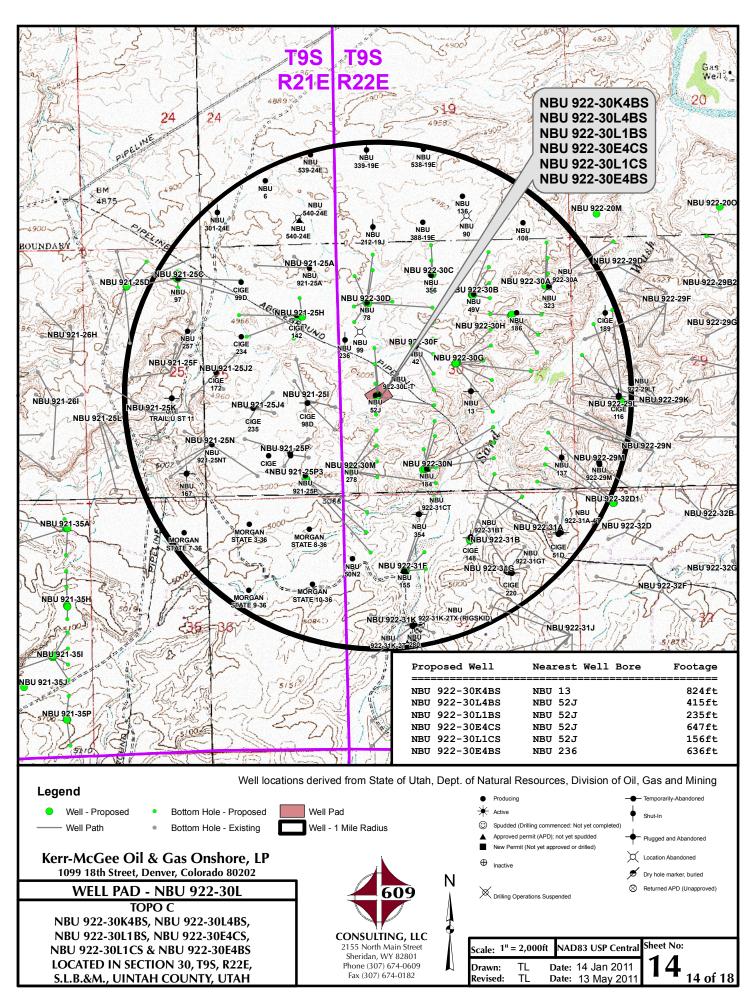
From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 17.2 miles to a service road to the southeast. Exit left and proceed in a southeasterly, then southerly direction along the service road approximately 0.8 miles to a second service road to the southeast. Exit left and proceed in a southeasterly direction along the second service road approximately 0.8 miles to the proposed well pad.

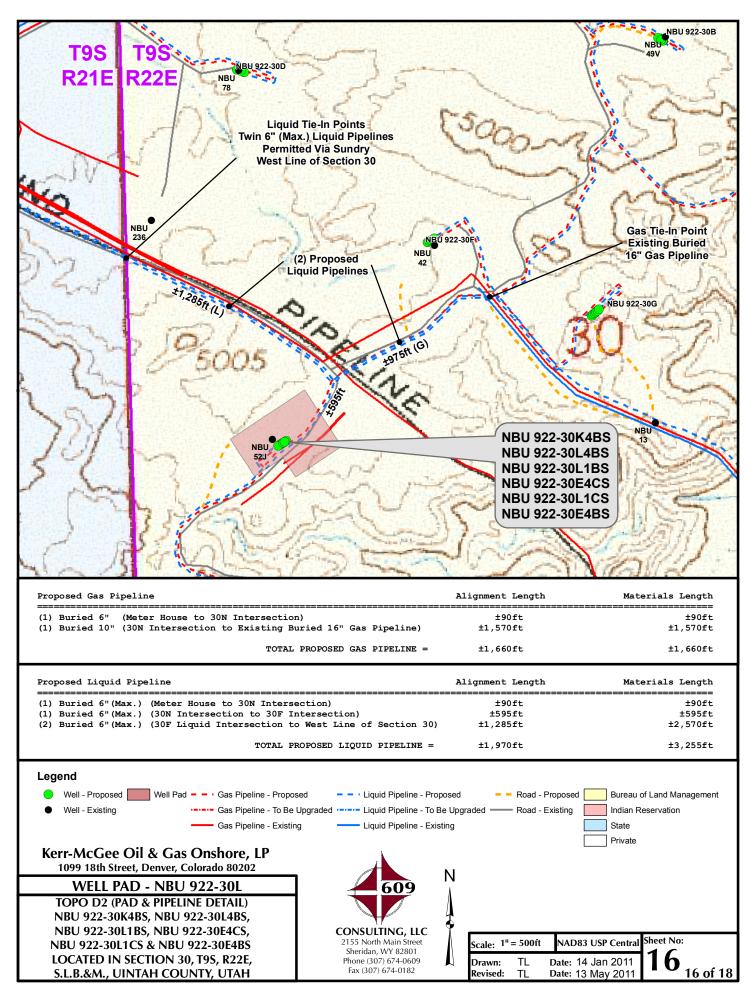
Total distance from Vernal, Utah to the proposed well location is approximately 42.3 miles in a southerly direction.

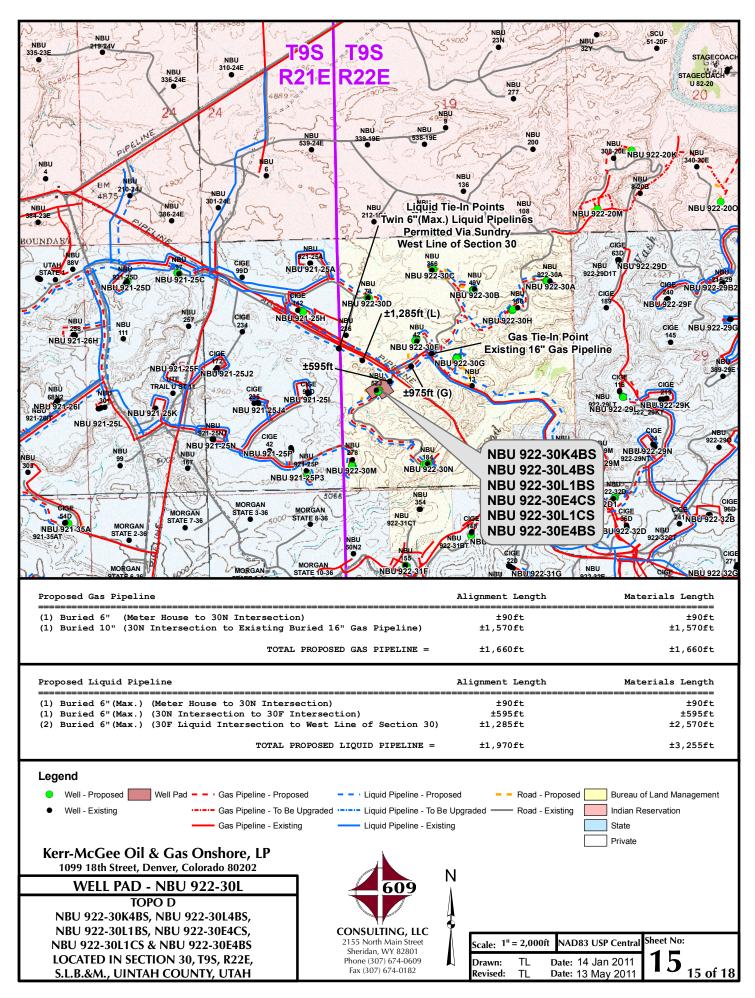
SHEET 18 OF 18

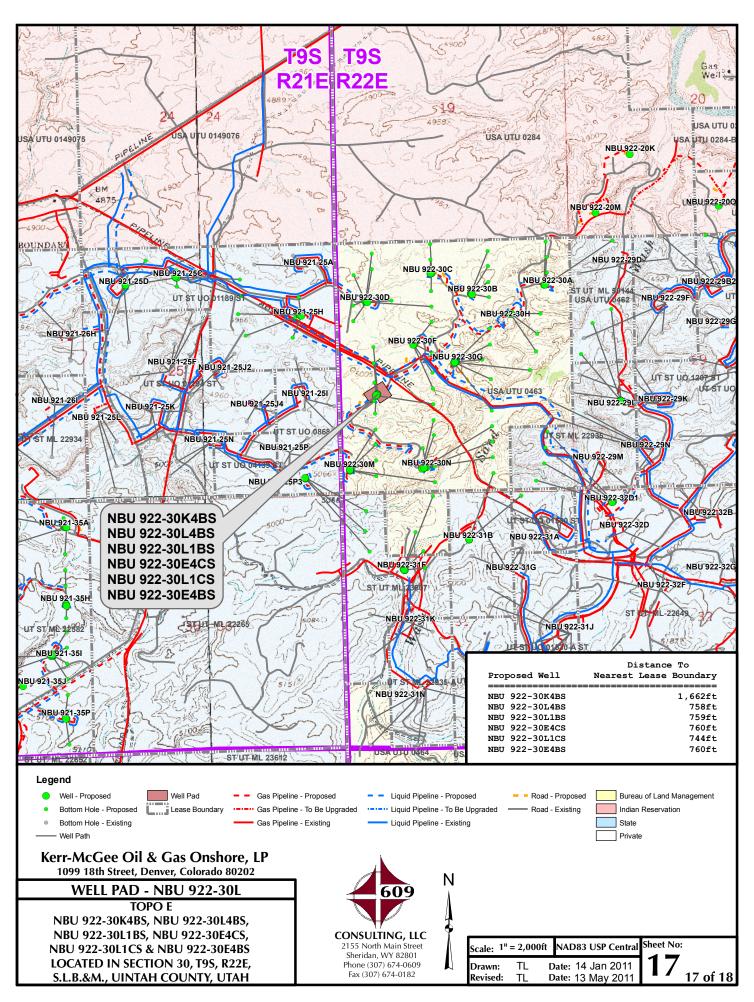












NBU 922-30L PAD

Drilling Program

1 of 7

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 922-30L1CS

Surface: 2085 FSL / 783 FWL NWSW BHL: 1964 FSL / 744 FWL NWSW

Section 30 T9S R22E

Uintah County, Utah Mineral Lease: UTU 0463

ONSHORE ORDER NO. 1

DRILLING PROGRAM

Estimated Tops of Important Geologic Markers: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1400	
Birds Nest	1708	Water
Mahogany	2073	Water
Wasatch	4652	Gas
Mesaverde	7291	Gas
MVU2	8272	Gas
MVL1	8820	Gas
TVD	9543	
TD	9546	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

NBU 922-30L PAD

Drilling Program
2 of 7

7. <u>Abnormal Conditions</u>:

Maximum anticipated bottom hole pressure calculated at 9543' TVD, approximately equals 6,094 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,995 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

NBU 922-30L PAD

Drilling Program

3 of 7

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

NBU 922-30L PAD

Drilling Program
4 of 7

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

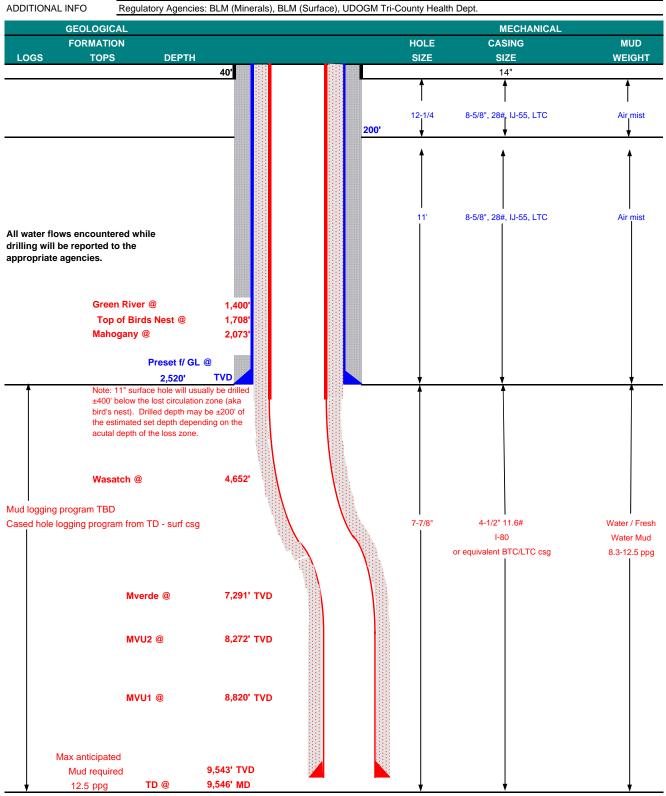
10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP DATE June 21, 2011 NBU 922-30L1CS WELL NAME TD 9,543' 9,546' MD TVD FINISHED ELEVATION **FIELD** Natural Buttes COUNTY Uintah STATE Utah 4971' SURFACE LOCATION NWSW 2085 FSL 783 FWL Sec 30 T 9S R 22E Latitude: 40.005464 Longitude: -109.487861 NAD 83 BTM HOLE LOCATION **NWSW** 1964 FSL 744 FWL Sec 30 T 9S R 22E Latitude: 40.005131 -109.488000 NAD 83 Longitude: OBJECTIVE ZONE(S) Wasatch/Mesaverde





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM	1								DESIGN F	ACTORS	
										LTC	BTC
	SIZE	INT	ERVAL		WT.	GR.	CPLG.	BURST	COLLA	PSE	TENSION
CONDUCTOR	14"	C)-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,520	28.00	IJ-55	LTC	2.15	1.59	5.63	N/A
								7,780	6,350	279,000	367,000
PRODUCTION	4-1/2"	0	to	9,546	11.60	I-80	LTC/BTC	1.11	1.02	3.11	4.10

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	Y	'IELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water	to surface, o	option 2 will	be utilized		
Option 2 LEAD	2,020'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	4,146'	Premium Lite II +0.25 pps	310	20%	11.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	5,400'	50/50 Poz/G + 10% salt + 2% gel	1,280	35%	14.30		1.31
		+ 0.1% R-3					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

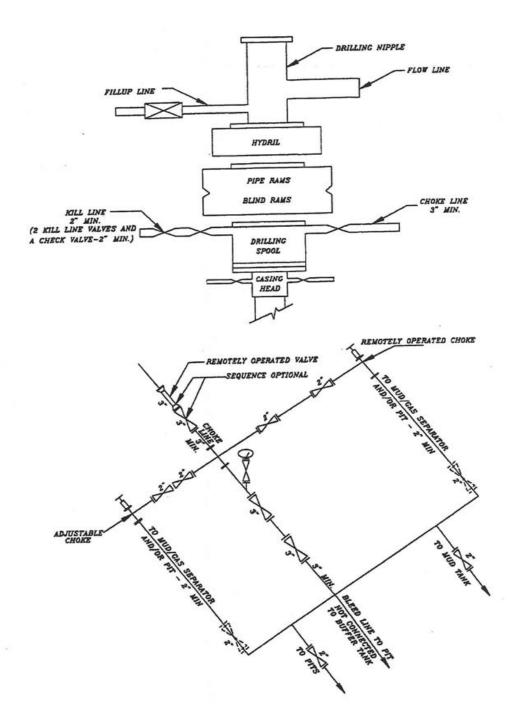
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.
Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

	ge			
DRILLING	ENGINEER:		DATE:	
		Nick Spence / Danny Showers	'	
DRILLING	SUPERINTENDENT:		DATE:	
		Kenny Gathings / Lovel Young	•	

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A NBU 922-30L1CS



Scientific Drilling
Rocky Mountain Operations

Site: NBU 922-30L PAD Well: NBU 922-30L1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY



WELL DETAILS: NBU 922-30L1CS GL 4971' & KB 9' @ 4980.00ft (Original Well Elev) +N/-S +E/-W Northing **Easting** Latittude Longitude 40° 0' 19.796 N 0.00 0.00 14531642.75 2064070.53 109° 29' 13.830 W **DESIGN TARGET DETAILS** +E/-W TVD +N/-S Northing Latitude Longitude Easting Shape Name 109° 29' 14.330 WCircle (Radius: 25.00 **PBHL** 9543.00 -121.28 -38.93 14531520.82 2064033.66 40° 0' 18.598 N - plan hits target center FORMATION TOP DETAILS **CASING DETAILS TVDPath MDPath Formation** TVD MD Name Size 0.00 1400.00 1401.45 **GREEN RIVER** 2523.00 2526.07 8 5/8" 8.625 4652.00 4655.35 **WASATCH** 0.00 7291.00 7294.35 **MESAVERDE** 0.00 **SECTION DETAILS VSect** MD Inc Azi TVD +N/-S +E/-W Dleg TFace 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 300.00 0.00 0.00 300.00 0.00 0.00 0.00 0.00 0.00 2.00 197.80 3.08 197.80 454.09 -3.95 454.16 -1.27 4.15 2657.16 3.08 197.80 2653.90 -116.77 -37.48 0.00 0.00 122.64 2833.35 0.00 0.00 2830.00 -121.28 -38.93 1.75 180.00 127.38 PBHL_NBU 922-30L1CS 9546.35 0.00 9543.00 0.00 -121.28 -38.93 0.00 0.00 127.38 PROJECT DETAILS: Uintah County, UT UTM12 Geodetic System: Universal Transverse Mercator (US Survey Feet) Datum: NAD 1927 - Western US Ellipsoid: Clarke 1866

Zone: Zone 12N (114 W to 108 W) Location: SECTION 30 T9S R22E

System Datum: Mean Sea Level

Sundry Number ject: 60 nrah Edunty, UT Number: 43047395400000

Scientific Drilling

Rocky Mountain Operations

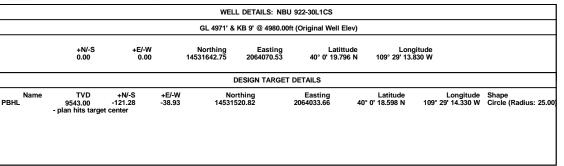
Vertical Section at 197.80° (1500 ft/in)

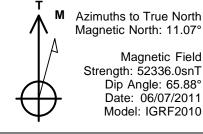
Site: NBU 922-30L PAD Well: NBU 922-30L1CS

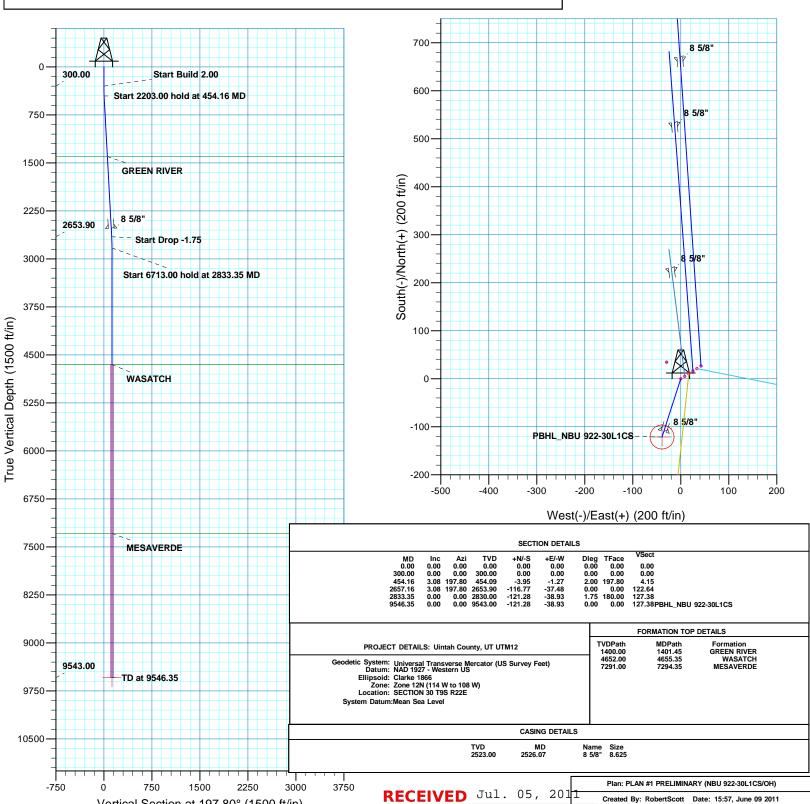
Wellbore: OH

Design: PLAN #1 PRELIMINARY











Kerr McGee Oil and Gas Onshore LP

Uintah County, UT UTM12 NBU 922-30L PAD NBU 922-30L1CS

ОН

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

14 June, 2011





SDI Planning Report



EDM5000-RobertS-Local Database:

Company: Kerr McGee Oil and Gas Onshore LP **Local Co-ordinate Reference:**

Well NBU 922-30L1CS

TVD Reference:

GL 4971' & KB 9' @ 4980.00ft (Original Well

Uintah County, UT UTM12 Project:

GL 4971' & KB 9' @ 4980.00ft (Original Well MD Reference:

Elev)

Site:

NBU 922-30L PAD

North Reference:

True

Well:

NBU 922-30L1CS

Wellbore: ОН **Survey Calculation Method:**

Minimum Curvature

Design:

PLAN #1 PRELIMINARY

Project

Site

Well

Uintah County, UT UTM12

Map System:

Universal Transverse Mercator (US Survey Feet)

System Datum:

Mean Sea Level

Geo Datum: Map Zone:

NAD 1927 - Western US Zone 12N (114 W to 108 W)

NBU 922-30L PAD, SECTION 30 T9S R22E

Site Position: From: Lat/Long

+N/-S

+E/-W

Northing: Easting:

Northing:

14,531,642.75 usft 2,064,070.53 usft

Latitude: Longitude:

40° 0' 19.796 N 109° 29' 13.830 W

Position Uncertainty:

0.00 ft Slot Radius:

0.00 ft

0.00 ft

13.200 in **Grid Convergence:** 0.97

14,531,642.75 usft 2,064,070.53 usft

40° 0' 19.796 N Latitude:

Position Uncertainty

Well Position

0.00 ft

Easting: Wellhead Elevation: Longitude: **Ground Level:** 109° 29' 13.830 W 4.971.00 ft

ОН Wellbore

IGRF2010

Model Name

NBU 922-30L1CS, 2106 FSL 817 FWL

Sample Date

Declination (°)

11.07

Dip Angle (°)

Field Strength

(nT) 52,336

PLAN #1 PRELIMINARY Design

Audit Notes:

Magnetics

Version:

Phase:

06/07/2011

PLAN

Tie On Depth:

0.00

65.88

Vertical Section: Depth From (TVD) +N/-S +E/-W

0.00

(ft)

(ft) 0.00

(ft) 0.00 Direction (°) 197.80

Plan Sections Measured Vertical Dogleg Build Turn Depth Inclination Azimuth Depth +N/-S +E/-W Rate Rate Rate TFO (°/100ft) (°/100ft) (ft) (°) (°) (ft) (ft) (ft) (°/100ft) **Target** (°) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 300.00 0.00 0.00 300.00 0.00 0.00 0.00 0.00 0.00 0.00 454.16 3.08 197.80 454.09 -3.95 -1.27 2.00 2.00 0.00 197.80 2,657.16 3.08 197.80 2,653.90 -116.77 -37.48 0.00 0.00 0.00 0.00 2,833.35 0.00 0.00 2,830.00 -121 28 -38.93 1 75 -1 75 0.00 180.00 9,546.35 0.00 0.00 9,543.00 -121.28 -38.93 0.00 0.00 0.00 0.00 PBHL_NBU 922-30L1



SDIPlanning Report



Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

Site: NBU 922-30L PAD

Well: NBU 922-30L1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

Survey Calculation Method:

TVD Reference:

MD Reference:

North Reference:

GL 4971' & KB 9' @ 4980.00ft (Original Well

Elev)

GL 4971' & KB 9' @ 4980.00ft (Original Well

Elev) True

Minimum Curvature

Well NBU 922-30L1CS

ssigii.										
lanned	Survey									
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
			0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
	Start Build 2.									
	400.00	2.00	197.80	399.98	-1.66	-0.53	1.75	2.00	2.00	0.00
	454.16	3.08	197.80	454.09	-3.95	-1.27	4.15	2.00	2.00	0.00
				404.00	0.00	1.21	4.10	2.00	2.00	0.00
		hold at 454.16		400.00	0.00	0.00	0.04	0.00	0.00	0.00
	500.00	3.08	197.80	499.86	-6.30	-2.02	6.61	0.00	0.00	0.00
	600.00	3.08	197.80	599.71	-11.42	-3.67	11.99	0.00	0.00	0.00
	700.00	3.08	197.80	699.57	-16.54	-5.31	17.37	0.00	0.00	0.00
	800.00	3.08	197.80	799.43	-21.66	-6.95	22.75	0.00	0.00	0.00
	900.00	3.08	197.80	899.28	-26.78	-8.60	28.13	0.00	0.00	0.00
	1,000.00	3.08	197.80	999.14	-31.90	-10.24	33.51	0.00	0.00	0.00
	1,100.00	3.08	197.80	1,098.99	-31.90 -37.02	-10.2 4 -11.89	38.88	0.00	0.00	0.00
	1,200.00	3.08	197.80	1,198.85	-42.14	-13.53	44.26	0.00	0.00	0.00
	1,300.00	3.08	197.80	1,298.70	-47.27	-15.17	49.64	0.00	0.00	0.00
	1,400.00	3.08	197.80	1,398.56	-52.39	-16.82	55.02	0.00	0.00	0.00
	1,401.45	3.08	197.80	1,400.00	-52.46	-16.84	55.10	0.00	0.00	0.00
	GREEN RIVE			.,						
	1,500.00	3.08	197.80	1.498.41	-57.51	-18.46	60.40	0.00	0.00	0.00
			197.80	,						
	1,600.00	3.08		1,598.27	-62.63	-20.11	65.78	0.00	0.00	0.00
	1,700.00	3.08	197.80	1,698.12	-67.75	-21.75	71.16	0.00	0.00	0.00
	1,800.00	3.08	197.80	1,797.98	-72.87	-23.39	76.53	0.00	0.00	0.00
	1,900.00	3.08	197.80	1,897.83	-77.99	-25.04	81.91	0.00	0.00	0.00
	2,000.00	3.08	197.80	1,997.69	-83.11	-26.68	87.29	0.00	0.00	0.00
	2,100.00	3.08	197.80	2,097.54	-88.24	-28.33	92.67	0.00	0.00	0.00
	2,200.00	3.08	197.80	2,197.40	-93.36	-29.97	98.05	0.00	0.00	0.00
	2,200.00	3.00	137.00	2,137.40	-33.30	-23.31	90.03	0.00	0.00	0.00
	2,300.00	3.08	197.80	2,297.25	-98.48	-31.61	103.43	0.00	0.00	0.00
	2,400.00	3.08	197.80	2,397.11	-103.60	-33.26	108.81	0.00	0.00	0.00
	2,500.00	3.08	197.80	2,496.96	-108.72	-34.90	114.19	0.00	0.00	0.00
	2,526.07	3.08	197.80	2,523.00	-110.06	-35.33	115.59	0.00	0.00	0.00
	8 5/8"									
	2,600.00	3.08	197.80	2,596.82	-113.84	-36.55	119.56	0.00	0.00	0.00
	,									
	2,657.16	3.08	197.80	2,653.90	-116.77	-37.48	122.64	0.00	0.00	0.00
	Start Drop -1									
	2,700.00	2.33	197.80	2,696.69	-118.70	-38.10	124.66	1.75	-1.75	0.00
	2,800.00	0.58	197.80	2,796.65	-121.12	-38.88	127.21	1.75	-1.75	0.00
	2,833.35	0.00	0.00	2,830.00	-121.28	-38.93	127.38	1.75	-1.75	486.39
	Start 6713.00	hold at 2833.35	MD							
	2,900.00	0.00	0.00	2,896.65	-121.28	-38.93	127.38	0.00	0.00	0.00
	3,000.00	0.00	0.00	2,996.65	-121.28	-38.93	127.38	0.00	0.00	0.00
		0.00		,		-36.93 -38.93	127.38		0.00	
	3,100.00		0.00	3,096.65	-121.28			0.00		0.00
	3,200.00	0.00	0.00	3,196.65	-121.28	-38.93	127.38	0.00	0.00	0.00
	3,300.00	0.00	0.00	3,296.65	-121.28	-38.93	127.38	0.00	0.00	0.00
	3,400.00	0.00	0.00	3,396.65	-121.28	-38.93	127.38	0.00	0.00	0.00
	3,500.00	0.00	0.00	3,496.65	-121.28	-38.93	127.38	0.00	0.00	0.00
	3,600.00	0.00	0.00	3,596.65	-121.28	-38.93	127.38	0.00	0.00	0.00
	3,700.00	0.00	0.00	3,696.65	-121.28	-38.93	127.38	0.00	0.00	0.00
	3,800.00	0.00	0.00	3,796.65	-121.28	-38.93	127.38	0.00	0.00	0.00
	3,900.00	0.00	0.00	3,896.65	-121.28	-38.93	127.38	0.00	0.00	0.00
	0,000.00	0.00	0.00	5,050.05	-121.20	-30.33	121.50	0.00	0.00	0.00



SDI Planning Report



Database: EDM5000-RobertS-Local

Company: Kerr McGee Oil and Gas Onshore LP

Project: Uintah County, UT UTM12

 Site:
 NBU 922-30L PAD

 Well:
 NBU 922-30L1CS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

Ele

North Reference:

Survey Calculation Method:

Well NBU 922-30L1CS

GL 4971' & KB 9' @ 4980.00ft (Original Well

Elev)

GL 4971' & KB 9' @ 4980.00ft (Original Well

Elev) True

Minimum Curvature

esign:	PLAN #1 PRE	LIMINARI							
lanned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,000.00	0.00	0.00	3,996.65	-121.28	-38.93	127.38	0.00	0.00	0.00
4,100.00	0.00	0.00	4,096.65	-121.28	-38.93	127.38	0.00	0.00	0.00
4,200.00	0.00	0.00	4,196.65	-121.28	-38.93	127.38	0.00	0.00	0.00
4,300.00	0.00	0.00	4,296.65	-121.28	-38.93	127.38	0.00	0.00	0.00
4,400.00	0.00	0.00	4,396.65	-121.28	-38.93	127.38	0.00	0.00	0.00
4,500.00	0.00	0.00	4,496.65	-121.28	-38.93	127.38	0.00	0.00	0.00
4,600.00	0.00	0.00	4,596.65	-121.28	-38.93	127.38	0.00	0.00	0.00
4,655.35	0.00	0.00	4,652.00	-121.28	-38.93	127.38	0.00	0.00	0.00
WASATCH	0.00	0.00	4,002.00	-121.20	-30.93	127.50	0.00	0.00	0.00
4,700.00	0.00	0.00	4,696.65	-121.28	-38.93	127.38	0.00	0.00	0.00
4,800.00	0.00	0.00	4,796.65	-121.26 -121.28	-36.93 -38.93	127.38	0.00	0.00	0.00
4,900.00	0.00	0.00	4,896.65	-121.28	-38.93	127.38	0.00	0.00	0.00
5,000.00	0.00	0.00	4,996.65	-121.28	-38.93	127.38	0.00	0.00	0.00
5,100.00	0.00	0.00	5,096.65	-121.28	-38.93	127.38	0.00	0.00	0.00
5,200.00	0.00	0.00	5,196.65	-121.28	-38.93	127.38	0.00	0.00	0.00
5,300.00	0.00	0.00	5,296.65	-121.28	-38.93	127.38	0.00	0.00	0.00
5,400.00	0.00	0.00	5,396.65	-121.28	-38.93	127.38	0.00	0.00	0.00
5,500.00	0.00	0.00	5,496.65	-121.28	-38.93	127.38	0.00	0.00	0.00
5,600.00	0.00	0.00	5,596.65	-121.28	-38.93	127.38	0.00	0.00	0.00
5,700.00	0.00	0.00	5,696.65	-121.28	-38.93	127.38	0.00	0.00	0.00
5,800.00	0.00	0.00	5,796.65	-121.28	-38.93	127.38	0.00	0.00	0.00
	0.00							0.00	0.00
5,900.00 6,000.00	0.00	0.00 0.00	5,896.65 5,996.65	-121.28 -121.28	-38.93 -38.93	127.38 127.38	0.00 0.00	0.00	0.00
6,100.00	0.00	0.00	6,096.65	-121.28	-38.93	127.38	0.00	0.00	0.00
6,200.00	0.00	0.00	6,196.65	-121.28	-38.93	127.38	0.00	0.00	0.00
6,300.00	0.00	0.00	6,296.65	-121.28	-38.93	127.38	0.00	0.00	0.00
6,400.00	0.00	0.00	6,396.65	-121.28	-38.93	127.38	0.00	0.00	0.00
6,500.00	0.00	0.00	6,496.65	-121.28	-38.93	127.38	0.00	0.00	0.00
6,600.00	0.00	0.00	6,596.65	-121.28	-38.93	127.38	0.00	0.00	0.00
6,700.00	0.00	0.00	6,696.65	-121.28	-38.93	127.38	0.00	0.00	0.00
6,800.00	0.00	0.00	6,796.65	-121.28	-38.93	127.38	0.00	0.00	0.00
6,900.00	0.00	0.00	6,896.65	-121.28	-38.93	127.38	0.00	0.00	0.00
7,000.00	0.00	0.00	6,996.65	-121.28	-38.93	127.38	0.00	0.00	0.00
7,100.00	0.00	0.00	7,096.65	-121.28	-38.93	127.38	0.00	0.00	0.00
7,200.00	0.00	0.00	7,196.65	-121.28	-38.93	127.38	0.00	0.00	0.00
7,294.35	0.00	0.00	7,291.00	-121.28	-38.93	127.38	0.00	0.00	0.00
MESAVERDE									
7.300.00	0.00	0.00	7,296.65	-121.28	-38.93	127.38	0.00	0.00	0.00
7,400.00 7,500.00	0.00	0.00 0.00	7,396.65 7,496.65	-121.28 -121.28	-38.93 -38.93	127.38 127.38	0.00	0.00 0.00	0.00 0.00
7,600.00	0.00	0.00	7,496.65	-121.28	-38.93	127.38	0.00	0.00	0.00
7,700.00	0.00	0.00	7,696.65	-121.28	-38.93	127.38	0.00	0.00	0.00
7,800.00	0.00	0.00	7,796.65	-121.28	-38.93	127.38	0.00	0.00	0.00
7,900.00	0.00	0.00	7,896.65	-121.28	-38.93	127.38	0.00	0.00	0.00
8,000.00	0.00	0.00	7,996.65	-121.28	-38.93	127.38	0.00	0.00	0.00
8,100.00	0.00	0.00	8,096.65	-121.28	-38.93	127.38	0.00	0.00	0.00
8,200.00	0.00	0.00	8,196.65	-121.28	-38.93	127.38	0.00	0.00	0.00
8,300.00	0.00	0.00	8,296.65	-121.28	-38.93	127.38	0.00	0.00	0.00
8,400.00	0.00	0.00	8,396.65	-121.28	-38.93	127.38	0.00	0.00	0.00
8,500.00	0.00	0.00	8,496.65	-121.28	-38.93	127.38	0.00	0.00	0.00
8,600.00	0.00	0.00	8,596.65	-121.28	-38.93	127.38	0.00	0.00	0.00
8,700.00	0.00	0.00	8,696.65	-121.28	-38.93	127.38	0.00	0.00	0.00



SDI Planning Report



Database: Company: EDM5000-RobertS-Local

Kerr McGee Oil and Gas Onshore LP

Project:

Uintah County, UT UTM12

Site: Well: NBU 922-30L PAD

NBU 922-30L1CS

Wellbore:

Design:

PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

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Survey Calculation Method:

Well NBU 922-30L1CS

GL 4971' & KB 9' @ 4980.00ft (Original Well

GL 4971' & KB 9' @ 4980.00ft (Original Well

Elev) True

Minimum Curvature

0.00 0.00 0.00	0.00 0.00 0.00	8,796.65 8,896.65	-121.28 -121.28	-38.93 -38.93	127.38 127.38	0.00	0.00	0.00
		-,		-38.93	127.38	0.00	0.00	0.00
		0.000.05					0.00	0.00
	0.00	8,996.65	-121.28	-38.93	127.38	0.00	0.00	0.00
0.00	0.00	9,096.65	-121.28	-38.93	127.38	0.00	0.00	0.00
0.00	0.00	9,196.65	-121.28	-38.93	127.38	0.00	0.00	0.00
0.00	0.00	9,296.65	-121.28	-38.93	127.38	0.00	0.00	0.00
0.00	0.00	9,396.65	-121.28	-38.93	127.38	0.00	0.00	0.00
0.00	0.00	9,496.65	-121.28	-38.93	127.38	0.00	0.00	0.00
0.00	0.00	9,543.00	-121.28	-38.93	127.38	0.00	0.00	0.00
-3	0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 9,296.65 0.00 0.00 9,396.65 0.00 0.00 9,496.65 0.00 0.00 9,543.00	0.00 0.00 9,296.65 -121.28 0.00 0.00 9,396.65 -121.28 0.00 0.00 9,496.65 -121.28 0.00 0.00 9,543.00 -121.28	0.00 0.00 9,296.65 -121.28 -38.93 0.00 0.00 9,396.65 -121.28 -38.93 0.00 0.00 9,496.65 -121.28 -38.93 0.00 0.00 9,543.00 -121.28 -38.93	0.00 0.00 9,296.65 -121.28 -38.93 127.38 0.00 0.00 9,396.65 -121.28 -38.93 127.38 0.00 0.00 9,496.65 -121.28 -38.93 127.38 0.00 0.00 9,543.00 -121.28 -38.93 127.38	0.00 0.00 9,296.65 -121.28 -38.93 127.38 0.00 0.00 0.00 9,396.65 -121.28 -38.93 127.38 0.00 0.00 0.00 9,496.65 -121.28 -38.93 127.38 0.00 0.00 0.00 9,543.00 -121.28 -38.93 127.38 0.00	0.00 0.00 9,296.65 -121.28 -38.93 127.38 0.00 0.00 0.00 0.00 9,396.65 -121.28 -38.93 127.38 0.00 0.00 0.00 0.00 9,496.65 -121.28 -38.93 127.38 0.00 0.00 0.00 0.00 9,543.00 -121.28 -38.93 127.38 0.00 0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 922-30L1Cs - plan hits target cer - Circle (radius 25.00	iter	0.00	9,543.00	-121.28	-38.93	14,531,520.83	2,064,033.66	40° 0' 18.598 N	109° 29' 14.330 W

Casing Points					
	Measured	Vertical		Casing Ho	ole
	Depth	Depth		Diameter Dian	neter
	(ft)	(ft)	Name	(in) (i	n)
	2,526.07	2,523.00 8 5/8"		8.625	11.000

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	1,401.45	1,400.00	GREEN RIVER		0.00	
	4,655.35	4,652.00	WASATCH		0.00	
	7,294.35	7,291.00	MESAVERDE		0.00	

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
454.16	454.09	-3.95	-1.27	Start 2203.00 hold at 454.16 MD
2,657.16	2,653.90	-116.77	-37.48	Start Drop -1.75
2,833.35	2,830.00	-121.28	-38.93	Start 6713.00 hold at 2833.35 MD
9,546.35	9,543.00	-121.28	-38.93	TD at 9546.35



Kerr-McGee Oil & Gas Onshore LP PO Box 173779 DENVER, CO 80217-3779

April 4, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 922-30L1CS

T9S-R22E

Section 30 NWSW (Surf), NWSW (Bottom)

Surface: 2085' FSL, 783' FWL Bottom Hole: 1964' FSL, 744' FWL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee's NBU 922-30L1CS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney

Sr. Staff Landman

Joe Matrues

NBU 922-30E4BS / 922-30E4CS / 922-30K4BS / 922-30L1BS / 922-30L1CS / 922-30L4BS Kerr-McGee OII Gas Onshore, L.P.

NBU 922-30L Pad Surface Use Plan of Operations 1 of 13

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 922-30L Pad

<u>API #</u>	N	IBU 922-30E4BS		
	Surface:	2112 FSL / 826 FWL	NWSW	Lot 3
	BHL:	2194 FNL / 760 FWL	SWNW	Lot 2
<u>API #</u>	N	IBU 922-30E4CS		
	Surface:	2101 FSL / 809 FWL	NWSW	Lot 3
	BHL:	2519 FNL / 760 FWL	SWNW	Lot 2
<u>API #</u>	N	IBU 922-30K4BS		
	Surface:	2085 FSL / 783 FWL	NWSW	Lot 3
	BHL:	1872 FSL / 1978 FWL	NESW	Lot
<u>API #</u>	N	IBU 922-30L1BS		
	Surface:	2096 FSL / 800 FWL	NWSW	Lot 3
	BHL:	2355 FSL / 759 FWL	NWSW	Lot 3
API #4304739540	N	IBU 922-30L1CS		
	Surface:	2106 FSL / 817 FWL	NWSW	Lot 3
	BHL:	1964 FSL / 744 FWL	NWSW	Lot 3
<u>API #</u>	N	IBU 922-30L4BS		
	Surface:	2090 FSL / 792 FWL	NWSW	Lot 3
	BHL:	1705 FSL / 758 FWL	NWSW	Lot 3

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on May 5, 2011. Present were:

- David Gordon, Melissa Wardle, Karl Wright and Dan Emmett BLM; and
- John Slaugh and Mitch Batty Timberline Engineering & Land Surveying, Inc.; and
- · Jacob Dunham 609 Consulting, LLC; and
- · Andy Lytle, Charles Chase, Ken Gathings, Roger Parry, Grizz Oleen, and Sheila Wopsock Kerr-McGee

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

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The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

No segments require a ROW.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts,

bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road-utility corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s) adjacent to the well pad, as necessary.

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Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

The following segments are "on-lease"

 $\pm410'$ (0.08 miles) – Section 30 T09S R22E (NW/4 SW/4) – On-lease UTU0463, re-route from the SW corner of the pad to the existing access road. Please refer to Topo B.

C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the NBU 52J, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on June 2, 2011. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components that contain fluids (i.e. production tanks, produced liquids tanks, but typically excluding dehy's and/or separators). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accomodate a 25 year rainfall event, and be independent of the back cut. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

GAS GATHERING

Please refer to Exhibit A and Topo D- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is $\pm 1,660$ ' and the individual segments are broken up as follows:

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The following segments are "onlease", no ROW needed.

- ±90' (0.01 miles) Section 30 T09S R22E (NW/4 SW/4) On-lease UTU0463, BLM surface, New 6" buried gas gathering pipeline from the meter to the 30N intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- ±1,570' (0.3 miles) Section 30 T09S R22E (NW/4 SW/4) On-lease UTU0463, BLM surface, New 10" buried gas pipeline from the 30N intersection to the existing 16" gas pipeline (SE/4 NW/4). Please refer to Exhibit A, Line 13. This pipeline will be used concurrently with the 30N pad.

CATHODIC PROTECTION SITE

Section 30 T09S R22E (NE/4 SW/4) 2474' FSL & 1186' FWL

Deep well ground bed and Cathodic Protection equipment will be installed within the pipeline route to protect the integrity of the pipeline(s). A buried power line approximately 120 Volts +/- will be constructed from the existing overhead power line to a rectifier. The rectifier, which is approximately 3' X 4' +/-, will convert the AC power to DC power; it is then connected to the buried pipeline(s) to protect it from corrosion. Please see attached plat, location layout, typical set-up, and Topo B map.

LIQUID GATHERING

Please refer to Exhibit B and Topo D- Pad and Pipeline Detail.

Kerr-McGee proposes to install liquid gathering lines in a southwesterly direction to tie into a proposed southeasterly flowing buried pipeline. The total of this proposed liquid gathering from the meter to the Section lease line (SE/4 SE/4) is $\pm 6,590'$ and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ± 90 ' (0.01 miles) Section 30 T09S R22E (NW/4 SW/4) On-lease UTU0463, BLM surface, New 6' buried liquid gathering pipeline from the separator to the 30N intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- ±595' (0.12 miles) Section 30 T09S R22E (NW/4 SW/4) Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the 30N intersection to the proposed 30F intersection (NW/4 SW/4). Please refer to Exhibit B, Line 16. This pipeline will be used concurrently with the 30N pad.
- $\pm 1,010^{\circ}$ (0.19 miles) Section 30 T09S R22E (SE/4 NW/4) Lease UTU0463, BLM surface, Two (2) new 6" buried liquid gathering pipelines from the proposed 30G Intersection to the proposed 30L intersection (SE/4 NW/4). Please refer to Exhibit B, Line 2. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30N pads. Two (2) lines for a total of 2,020'.
 - ±495' (0.09 miles) Section 30 T09S R22E (SE/4 NW/4) Lease UTU0463, BLM surface, Two (2) new 6" buried liquid gathering pipelines from the proposed Transfer line to the tie-in point at the proposed 30G/30F intersection (SW/4 NE/4). Please refer Exhibit B, Line 13. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30N pads. Two (2) Lines for a total of 990'.
- ±2,895' (0.55 miles) Section 30 T09S R22E (SW/4 NE/4) Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the proposed 30G/30F intersection going southeast to the edge of the lease boundry of SE/4 SE/4. Please refer to Exhibit B, Line 15. The remaining liquid pipeline segment will travel to the existing tank battery on State surface. Kerr-McGee will apply for the appropriate State easements under separate cover. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30N pads.

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Kerr-McGee, additionally will install a liquid gathering line in a southwesterly direction to tie-into a proposed northwesterly flowing buried pipeline. The total of this proposed liquid gathering from the meter to the tie in point is $\pm 3,255$ ' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±90' (0.01 miles) Section 30 T09S R22E (NW/4 SW/4) On-lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the separator to the 30N intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- ±595' (0.12 miles) Section 30 T09S R22E (NW/4 SW/4) Lease UTU0463, BLM surface, New 6" buried liquid gathering pipeline from the 30N intersection to the proposed 30F intersection (NW/4 SW/4). Please refer to Exhibit B, Line 16. This pipeline will be used concurrently with the 30N pad.
- ±1,285' (0.24 miles) Section 30 T09S R22E (NW/4 SW/4) Lease UTU0463, BLM surface, Two (2) new 6" buried liquid gathering pipelines from the proposed 30L Intersection to the West Line of Section 30 where it will tie-into an existing liquid gathering pipeline on State surface. Please refer to Exhibit B, Line 1. Two (2) lines for a total of 2,570'. This pipeline will be used concurrently with the 30H, 30C, 30B, 30F, 30G, 30A, and 30N pads.

Pipeline Gathering Construction

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr-McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45' for buried lines and 30' for surface lines. In addition, Kerr-McGee requests for a permanent 30' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance width also are required to be 30'.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If all three lines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

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The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface. Please see site specific PODs and/or mapping materials for location of related facilities such as cathodic protection wells or pumping stations. Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves, lateral T's, and/or cathodic protection wells will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

Deep well ground bed and Cathodic Protection equipment will be installed within the pipeline route to protect the integrity of the pipeline(s). A buried power line approximately 120 Volts +/- will be constructed from the existing overhead power line to a rectifier. The rectifier, which is approximately 3' X 4' +/-, will convert the AC power to DC power; it is then connected to the buried pipeline(s) to protect it from corrosion. Please see attached plat for location of Cathodic Protection.

The Anadarko Completions Transportation System (ACTS) information:

Please refer to Exhibit C for ACTs Lines

Upon completion of the wells on this pad, Kerr-McGee is also requesting to utilize the pit on this the proposed location as an Anadarko Completion Transport System (ACTS) staging pit which will be utilized for other completion operations in the area. The ACTS process will reduce the amount of truck traffic on a field-wide basis, also reducing vehicle emissions and fugitive dust generation.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum pipe liquids transfer lines between frac locations. The pit will be refurbished as follows: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom of pit with cat. Kerr-McGee will

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reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit. Hog fence panels (5' \times 16') will be built and painted shadow gray and will be put up on the work side of the pit. Polypropylene netting will be installed over all pits.

The collected hydrocarbons will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks can unload and load to prevent damage caused from pulling hoses in and out of the pit.

ACTS will require temporarily laying multiple 6" aluminum pipe water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. Kerr-McGee understands that due to the temporary nature of this system BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

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Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil/topsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42"and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16'. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

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Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance, or meet the quantities criteria per BLM Instruction Memorandum No. 93-344, will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 34 T9S R21E

NBU 922-30E4BS / 922-30E4CS / 922-30K4BS / 922-30L1BS / 922-30L1CS / 922-30L4BS Kerr-McGee OII Gas Onshore, L.P.

NBU 922-30L Pad Surface Use Plan of Operations 10 of 13

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit, access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

Where produced liquids tanks are utilized, the tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids. The tanks will be fenced or capped to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without the prior approval of the BLM.

J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover

NBU 922-30E4BS / 922-30E4CS / 922-30K4BS / 922-30L1BS / 922-30L1CS / 922-30L4BS Kerr-McGee OII Gas Onshore, L.P.

NBU 922-30L Pad Surface Use Plan of Operations 11 of 13

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

Final Reclamation

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24" on 18 to 24" centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18"deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

Measures Common to Interim and Final Reclamation

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Shadescale Mix	e Live Seed lbs/acre
Indian Ricegrass (Nezpar)	3
Sandberg bluegrass	0.75
Bottlebrush squirreltail	1
Great Basin Wildrye	0.5

NBU 922-30E4BS / 922-30E4CS / 922-30K4BS / 922-30L1BS / 922-30L1CS / 922-30L4BS Kerr-McGee OII Gas Onshore, L.P.

NBU 922-30L Pad Surface Use Plan of Operations 12 of 13

Crested wheatgrass (Ephraim)	1.5
Winterfat	0.25
Shadscale	1.5
Four-wing saltbush	0.75
Forage Kochia	0.25
Total	9.5

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800 – 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 31, of the calendar year following the data collection.

K. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

L. Other Information:

Onsite Specifics:

- A 404 Stream Alteration Permit will be obtained to cross the Sand Wash in the SE/4 of the section See Exhibit A or B.
- · Facilities: Will be painted Shadow Grey
- Existing surface gas gathering pipeline will be removed from location if no longer in service

NBU 922-30E4BS / 922-30E4BS / 922-30L1BS / 922-30L1BS / 922-30L1CS / 922-30L4BS Kerr-McGee OII Gas Onshore, L.P.

NBU 922-30L Pad Surface Use Plan of Operations 13 of 13

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

Resource Reports:

A Class I literature survey was completed on February 11, 2011, by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 10-243b.

A paleontological reconnaissance survey was completed on December 31, 2010, by Intermountain Paleo-Consulting. For additional details please refer to report IPC #10-33.

Biological field survey was completed on January 27, 2011, by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-405.

Biological field survey was completed for the Southeast Trunk Liquid Line on June 2, 2011, by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-457.

M. Lessee's or Operators' Representative & Certification:

Laura Abrams
Regulatory Analyst II
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6356

Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

2 amal brams	June 2, 2011
Laura Abrams	Date

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 53 PROPOSED WELL LOCATIONS IN T9S, R22E, SECTIONS 30, 31, AND 32 (MOAC REPORT NO. 10-243b), UINTAH COUNTY, UTAH

By:

Andrea Van Schmus

Prepared For:

State of Utah
School and Institutional Trust Lands Administration
and
Bureau of Land Management
Vernal Field Office

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP 1099 18th Street, Suite 1800 Denver, CO 80202

Prepared By:

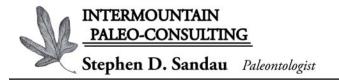
Montgomery Archaeological Consultants, Inc. P.O. Box 219 Moab, Utah 84532

MOAC Report No. 10-243b

February 11, 2011

State of Utah Public Lands Policy Coordination Office Permit No. 117

United States Department of Interior (FLPMA)
Permit No. 10-UT-60122



P. O. Box 1125 Vernal, UT. 84078 Phone & Fax (435) 789-7402 Cell: (801) 592-4328 E-mail: intermountainpaleo@yahoo.com

IPC #10-33

Paleontological Reconnaissance Survey Report

Block Section Survey of the SW Quarter of Section 30, Including Kerr McGee's Proposed "NBU #922-30L, E4BS, L4BS, L1BS, K4BS, & E4CS; NBU #922-30M, M4BS, M1CS, M1BS, L4CS, & N4CS; NBU #922-30N, O1CS, O1BS, N4BS, N1BS, K4CS, & J4CS" (Sec. 30, T 9 S, R 22 E)

Red Wash SW Topographic Quadrangle Uintah County, Utah

December 31, 2010

Prepared by Stephen D. Sandau Paleontologist for Intermountain Paleo-Consulting P. O. Box 1125 Vernal, Utah 84078





Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237 (303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT SPECIES REPORT

Report Number: GCI-405

Report Date: January 27, 2011

Operator: Kerr-McGee Oil & Gas Onshore, LP

Well: NBU 922-30L-T (Bores: NBU 922-30L4BS, NBU 922-30L1BS, NBU 922-30E4CS, NBU

922-30K4BS, and NBU 922-30E4BS)

Pipeline: Associated pipeline leading to proposed well pad expansion

Access Road: Associated access road re-route

Well Location: NW 1/4 of the SW 1/4, Section 30, Township 9 South, Range 22 East, Uintah

County, Utah

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*)

Survey Dates: June 22, June 24, August 10, and September 24, 2010

Observers: Grasslands Consulting, Inc. Biologists Dan Hamilton, Adrienne Cunningham, Josh

Christensen, and field technicians



Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237 (303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT SPECIES REPORT

Report Number: GCI #457

Report Date: June 2, 2011

Operator: Kerr-McGee Oil & Gas Onshore, LP

Operator Contact: Andrew Lytle (Andrew.Lytle@anadarko.com; 720-929-6100)

Proposed Project: NBU 922-30 to NBU 922-32 liquid pipeline

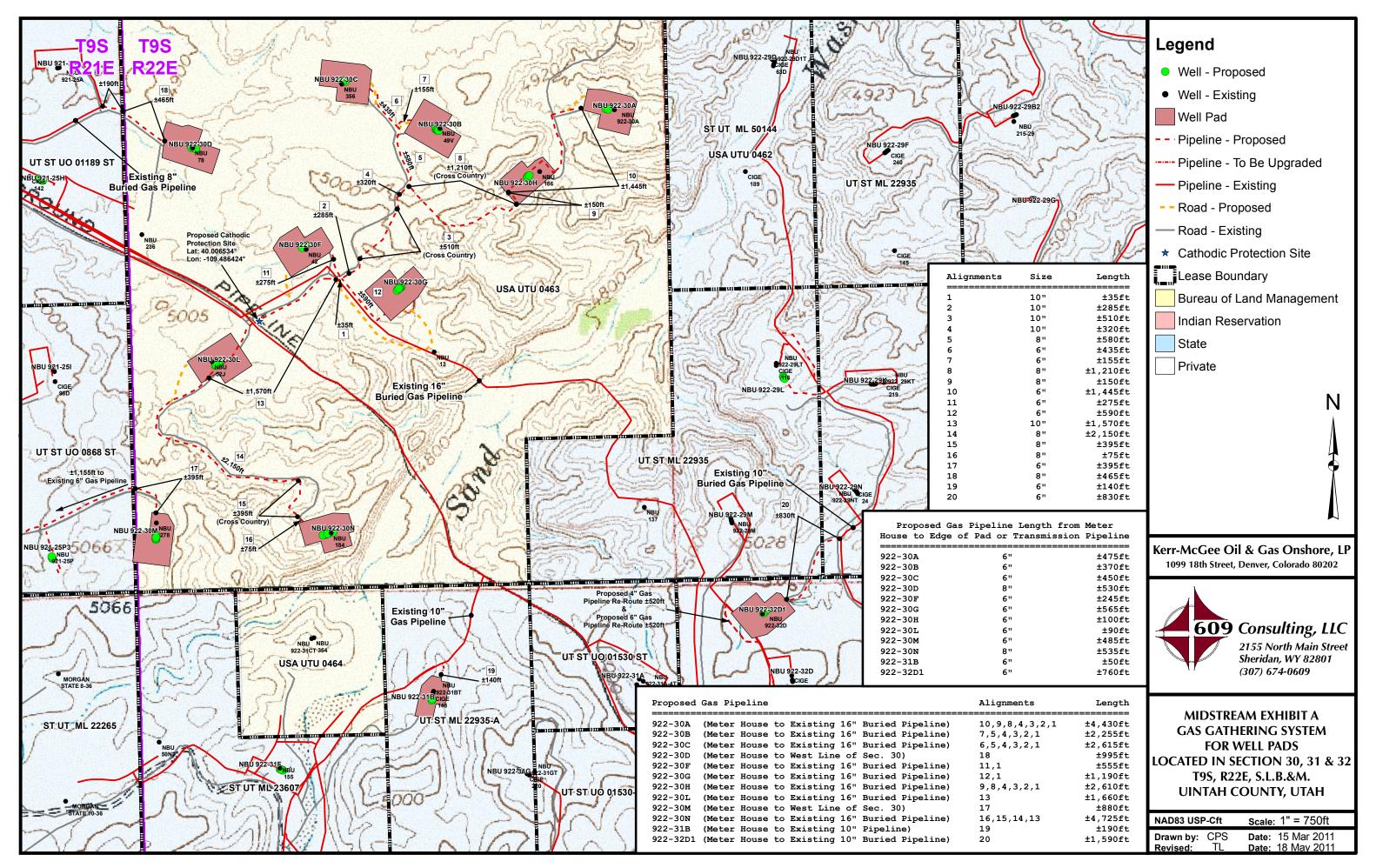
Location: Sections 29, 30, and 32 of Township 9 South, Range 22 East, Uintah County, Utah

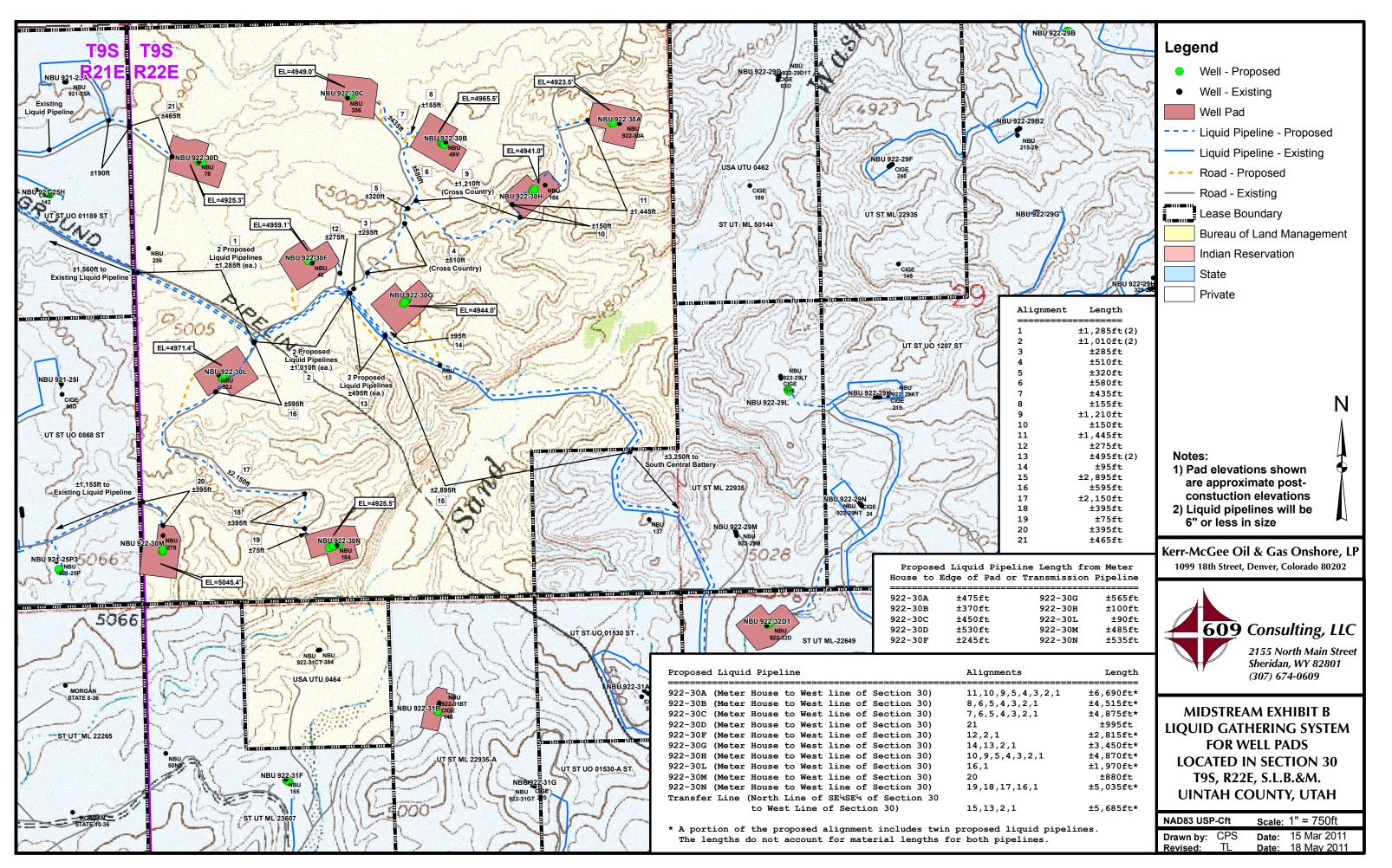
Survey Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*)

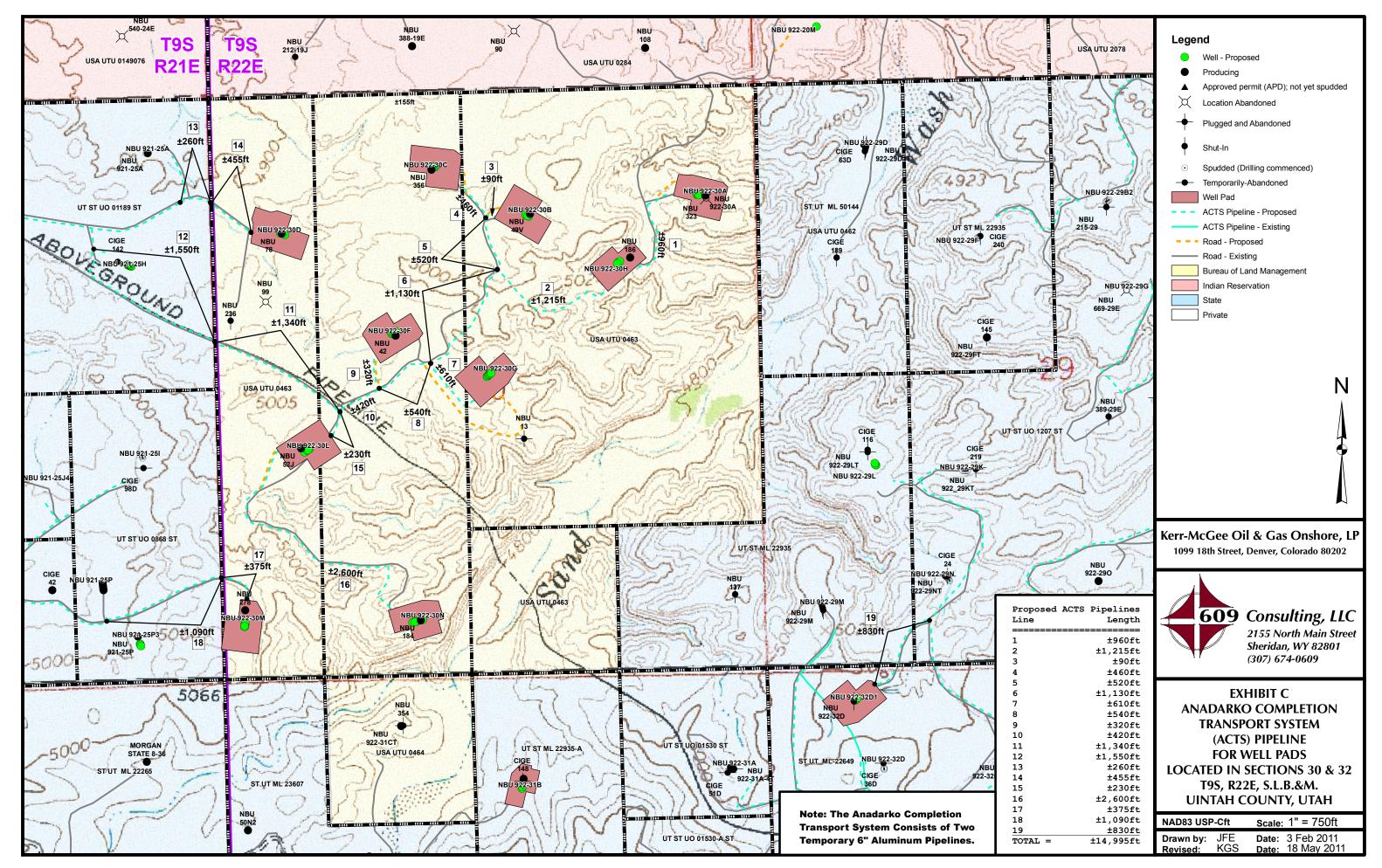
Survey Date: May 26, 2011

Observers: Grasslands Consulting, Inc. Biologists: Jonathan Sexauer, Tiffany Torrance, and

field technicians







FORM APPROVED OMB NO. 1004-0137 Expires: July 31, 2010

UNITED STATES DEPARTMENT OF THE INTERIOR 1 2011 BUREAU OF LAND MANAGEMENT

5. Lease Serial No.

UTU463

6. If Indian, Allottee or Tribe Name

APPLICATION FOR PERMIT TO T	DRILL OR REEN TERUTAN
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	AFF	LICATION FOI	V L EVIAL	11 10 1	'KIL	L OK KE	UNITER -				
Ia.	Type of Work:	X DRILL			REEN	ITER			UTU63	047A	t, Name and No.
1b.	Type of Well:	Oil Well X G	as Well	Other] Single Zone	X Multi	ple Zone	ł.	ame and Well N 2-30L1CS	0.
2.	Name of Operato	r							9. API Wel	1 No.	
		KERR-MCG	EE OIL &	& GAS C	NSH	ORE LP				43-047-39	540
3a.	Address				3b. Ph	one No. (incli	ude area code)		10. Field and	l Pool, or Explo	ratory
		P.O. BOX 173779 DENVER, CO 80202-3				Andy Lytle		29-6100		NATURAL BI	UTTES
4.	At surface N	(Report location clearly NWSW Lot 3 2085 FSL I. zone NWSW Lot 3	y and In acco 783 FWL 1964 FSL	ordance with Lat. 744 FWL		tate requirem 0.005464 40.005131	Long109	0.487861 09.488		.,M.,or Blk.an T 9S F	d Survey or Are
14.	Distance in miles	and direction from the			ce*				12. County o	r Parish	13. State
		Approximat	ely 42.3 Mil	es South of	Vernal,	Utah			UI	NTAH	UTAH
15.	Distance from pro- location to nearest property or lease I	t line, ft.		744'		16. No. of a	cres in lease	17. Spa	cing Unit ded	licated to this we	<u>.</u> 11
18.	Distance from pro to nearest well, dr applied for, on thi	illing, completed,		156'		19. Proposed	d Depth	20. BL	M/ BIA Bond	No. on file WYB000291	· · · · · · · · · · · · · · · · · · ·
21.	Elevations (Show	whether DF. RT, GR,	etc.)			22. Aproxim	ate date work	will start*	23. Esti	mated duration	
	4972'	GR					12/1/2011			60-90 D	lavs
					24	. Attachment			··		
The	following, comple	ted in accordance with	the requiren	nents of Ons	shore O	il and Gas Or	der No. 1 shall	be attached	d to this form:		
2. 3.	A Drilling Plan. A Surface Use Pla	I by a registered surveyon (if the location is on ed with the appropriate	National Fo	•	Lands,		item 20 above Operator certi). fication. e specific i			g bond on file(see ay be required by the
25.	Signature				Name (Printed/Type	d)	Andy l	(vtle	Date	6/21/2011
Title	Regulatory An	alyst I						Alluy	Lytte	<u></u>	6/21/2011
App	roved By (Signatur				Name (Printed/Type	ry Kenc	zka		Date DEC	1 5 2011

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attach

Office

Fitle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United

States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Continued on page 2)

Title

NOTICE OF APPROVAL

VERNAL FIELD OFFICE

DEC 1 9 2011

DIV. OF OIL, GAS & MINING



ssistage Field Manager

Larids & Mineral Resources



UNITED STATES DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE**

VERNAL, UT 84078

(435) 781-440



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	Kerr McGee Oil & Gas Onshore, LP	Location:	LOT 3, Sec. 30, T9S, R22E (S) LOT 3, Sec. 30, T9S, R22E (B)
Well No:	NBU 922-30L1CS	Lease No:	UTU-463
API No:	43-047-39540	Agreement:	Natural Buttes Unit

OFFICE NUMBER:

170 South 500 East

(435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	_	Forty-Eight (48) hours prior to construction of location and access roads.
(Notify Environmental Scientist)		access roads.
Location Completion	_	Prior to moving on the drilling rig.
(Notify Environmental Scientist)		
Spud Notice	-	Twenty-Four (24) hours prior to spudding the well.
(Notify Petroleum Engineer)		
Casing String & Cementing	-	Twenty-Four (24) hours prior to running casing and
(Notify Supv. Petroleum Tech.)		cementing all casing strings to: <u>ut_vn_opreport@blm.gov</u> .
BOP & Related Equipment Tests	-	Twenty-Four (24) hours prior to initiating pressure tests.
(Notify Supv. Petroleum Tech.)		
First Production Notice	-	Within Five (5) business days after new well begins or
(Notify Petroleum Engineer)		production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

SITE SPECIFIC COAs DOI-BLM-UT-G010-2011-0411-EA

General Conditions of Approval

- Kerr McGee will adhere to all applicant committed conservation measures and conservation recommendations that are stated in the USFWS's "Final Biological Opinion for the Anadarko Petroleum Corporation Natural Buttes Unit and Bonanza Area Natural Gas Development Project.
- The operator will follow the Green River District Reclamation Guidelines for Reclamation.

Mitigation for Invasive Weeds

- All vehicles and equipment will be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas will be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established
- Noxious and invasive weeds will be controlled throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an integrated pest management program is applicable, coordination has been undertaken with the state and local management program (if existing). A copy of the pest management plan will be submitted for each project.
- A pesticide use permit (PUP) will be obtained for the project, if applicable.

Page 3 of 7 Well: NBU 922-30L1CS 12/14/2011

Mitigation for Paleontology

• A permitted paleontologist is to be present for monitor purposes during all surface disturbing actives: examples include the following building of the well pad, access road, and pipelines

Mitigation Measures for Colorado River Fish Species:

- The best method to avoid entrapment is to pump from an off-channel location one that does not connect to the river during high spring flows. An infiltration gallery constructed in a BLM and Service approved location is best.
- If the pump head is located in the river channel where larval fish are known to occur, the following measures apply:
 - a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes;
 - b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (see above); and
 - c. limit the amount of pumping, to the greatest extent possible, during the pre-dawn hours as larval drift studies indicate that this is a period of greatest daily activity.
- Screen all pump intakes with 3/32" mesh material.
- Report any fish impinged on the intake screen to the Service (801.975.3330) and the Utah Division of Wildlife Resources:

Northeastern Region 152 East 100 North, Vernal, UT 84078 Phone: (435) 781-9453

Mitigation for Migratory birds.

- Construction and drilling is not allowed from January 1 August 31 to minimize impacts during Golden Eagle and Red-tailed hawk nesting
- If it is anticipated that construction or drilling will occur during the given timing restriction, a BLM or qualified biologist shall be notified so surveys can be conducted. Depending upon the results of the surveys, permission to proceed may or may not be recommended or granted by the BLM biologist. Authorized Officer.

Page 4 of 7 Well: NBU 922-30L1CS 12/14/2011

DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- A copy of Kerr McGee's Standard Operating Practices (SOP version: dated 7/17/08 and approved 7/28/08) shall be on location.
- Surface casing cement shall be brought to surface.
- Production casing cement shall be brought 200' up and into the surface casing.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily
 drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order
 No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a
 test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's
 log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.

Page 5 of 7 Well: NBU 922-30L1CS 12/14/2011

- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the <u>top of cement</u> and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 6 of 7 Well: NBU 922-30L1CS 12/14/2011

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - o Operator name, address, and telephone number.
 - o Well name and number.
 - o Well location (1/41/4, Sec., Twn, Rng, and P.M.).
 - O Date well was placed in a producing status (date of first production for which royalty will be paid).
 - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - O Unit agreement and/or participating area name and number, if applicable.
 - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

Page 7 of 7 Well: NBU 922-30L1CS 12/14/2011

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior approval of
 the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
 approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
 of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

SUBMIT AS EMAIL

Print Form

BLM - Vernal Field Office - Notification Form

-	ator KERR-McGEE OIL & GA				
	nitted By <u>J. Scharnowske</u>		er <u>720</u>	<u>.929.630</u> 4	<u> </u>
	Name/Number NBU 922-30L				
	Qtr NWSW Section 30	Township 98	F	Range <u>22</u>	<u>E</u>
	e Serial Number <u>UTU463</u>			· · · · · · · · · · · · · · · · · · ·	
API I	Number <u>4304739540</u>				
	<u>l Notice</u> – Spud is the initial pelow a casing string.	spudding of t	the we	ell, not d	rilling
	Date/Time <u>05/03/2012</u>	07:00 HRS A	М	РМ	
Casir times	ng — Please report time casis. Surface Casing Intermediate Casing Production Casing Liner Other	ing run starts,	not c	ementin	g
	Date/Time <u>05/12/2012</u>	08:00 HRS A	M	РМ	
BOPI	E Initial BOPE test at surface BOPE test at intermediate 30 day BOPE test Other	– 1			RECEIVED MAY 0.2 2012
	Date/Time	A	M	PM 🗌	
Rem	arks estimated date and time. Plea	SE CONTACT KENNY G	EATHINGS	AT	
435 82	8 0986 OR LOVEL YOUNG AT 435 781 705	51			

	STATE OF UTAH		FORM 9
ſ	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30L1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047395400000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 73779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2085 FSL 0783 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	tip, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Meri	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
✓ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
5/3/2012	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
Report Date:		SITA STATUS EXTENSION	
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU TRIPLE A BU RAN 14" 36.7# SC	COMPLETED OPERATIONS. Clearly show a CKET RIG. DRILLED 20" CON HEDULE 10 CONDUCTOR PII (. SPUD WELL LOCATION ON HRS.	DUCTOR HOLE TO 40'. PE. CEMENT WITH 28	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY May 14, 2012
NAME (PLEASE PRINT)	PHONE NUMB		
Jaime Scharnowske	720 929-6304	Regulartory Analyst	
SIGNATURE N/A		DATE 5/14/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

P.O. BOX 173779

city DENVER

state CO zip 80217

Phone Number: (720) 929-6247

Well 1

API Number	Wei	QQ Sec To		Twp	Rng	County	
4304751706 NBU 922-30E4BS			NWSW	30	098	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	s	Spud Date		Entity Assignment Effective Date	
B	99999	2900		5/3/2012			4 12012
	J BUCKET RIG. D WELL ON 05/03/201		WEMV HL:Su			-	1 10010

JENN HAWKINS

ORERATIONS SPECIALIST III 5/9/2012

Date

Name (Please Print)

Signature

Title

Well 2

API Number	Well	QQ	Sec	Twp	Rng	County	
4304739540	NBU 922-30L1CS		NWSW	NWSW 30 09S Spud Date		22E	UINTAH
Action Code	Current Entity Number	New Entity Number	s			Entity Assignment Effective Date	
B	99999	2900		5/3/2012			YIZOIZ
	J BUCKET RIG. D WELL ON 05/03/2012	U	avme			<u>. ~</u>	1,1-10/4

Well 3

API Number	Well	QQ Sec Twp		Twp	Rng County			
4304751707	NBU 922-30E4CS	J 922-30E4CS		30	098	22E	UINTAH	
Action Code	Current Entity Number			Spud Date			Entity Assignment Effective Date	
B	9999	2900		5/3/2012		5/10	0 12012	

ACTION CODES:

(5/2000)

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

RECEIVED

MAY 1 1 2012

Sundry Number: 25747 API Well Number: 43047395400000 FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

	FORM 9				
ı	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463				
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	oposals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.	pen existing wells below laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30L1CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047395400000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	PHO h Street, Suite 600, Denver, CO, 80217 377	ONE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5M&TUTRAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2085 FSL 0783 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Meridian:	: S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
✓ NOTICE OF INTENT Approximate date work will start:		ALTER CASING CHANGE TUBING	CASING REPAIR CHANGE WELL NAME		
5/15/2012		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:		FRACTURE TREAT	☐ NEW CONSTRUCTION		
		PLUG AND ABANDON RECLAMATION OF WELL SITE	☐ PLUG BACK ☐ RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
DRILLING REPORT		VENT OR FLARE SI TA STATUS EXTENSION	WATER DISPOSAL APD EXTENSION		
Report Date:		OTHER	OTHER:		
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all pe	ertinent details including dates, d	lepths, volumes, etc.		
The Operator re Specifically, the O loop drilling options	equests approval for changes in Operator requests approval for a , and a production casing chan oproved drilling plan will not cha attachment. Thank you.	the drilling plan. FIT wavier, closed ge. All other aspects	Accepted by the Utah Division of Oil, Gas and Mining Date: May 24, 2012		
			By: Usr K Junt		
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE			
Jaime Scharnowske SIGNATURE	720 929-6304	Regulartory Analyst DATE			
N/A		5/15/2012			

NBU 922-30L1CS Drilling Program
1 of 7

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 922-30L1CS

 Surface:
 2085 FSL / 783 FWL
 NWSW

 BHL:
 1964 FSL / 744 FWL
 NWSW

Section 30 T9S R22E

Uintah County, Utah Mineral Lease: UTU 0463

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

Formation Depth Resource Uinta 0 - Surface Green River 1,400'

Birds Nest 1,708' Water Mahogany 2,073' Water Wasatch 4,652' Gas Mesaverde 7,291' Gas Sego 9,543' Gas TVD 9,543' TD 9,546'

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Drilling Program

NBU 922-30L1CS Drilling Program
2 of 7

7. **Abnormal Conditions:**

Maximum anticipated bottom hole pressure calculated at 9543' TVD, approximately equals 6,108 psi 0.64 psi/ft = actual bottomhole gradient

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,995 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

NBU 922-30L1CS Drilling Program
3 of 7

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

NBU 922-30L1CS Drilling Program
4 of 7

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

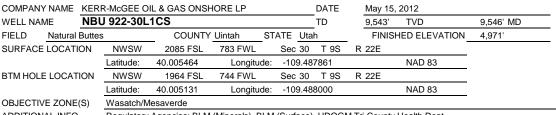
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

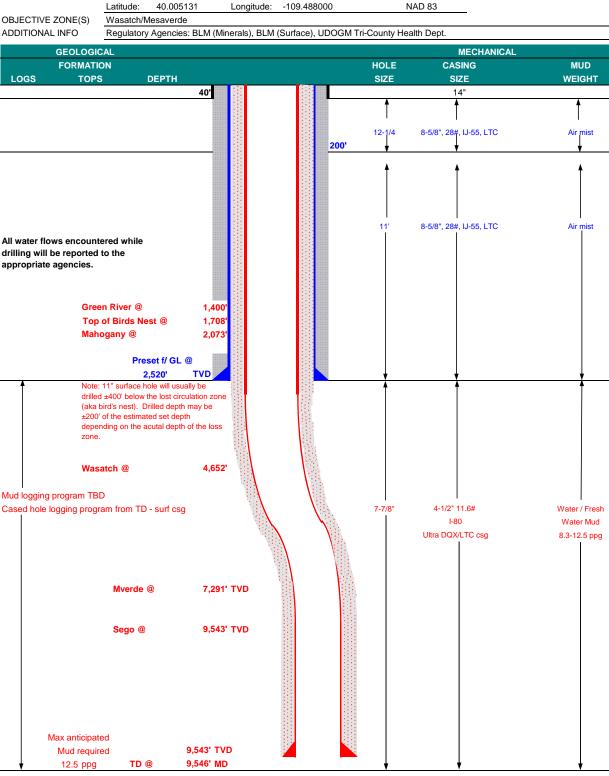
10. <u>Other Information:</u>

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM





Drilling Program 6 of 7



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM							DESIGN FACTORS				
										LTC	DQX
	SIZE	INTE	RVAL		WT.	GR.	CPLG.	BURST	COLL	APSE	TENSION
CONDUCTOR	14"	0	-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,520	28.00	IJ-55	LTC	2.15	1.59	5.63	N/A
								7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.02		2.98
								7,780	6,350	223,000	267,035
	4-1/2"	5,000	to	9,546'	11.60	I-80	LTC	1.11	1.02	5.23	

Surface Casing:

(Burst Assumptions: TD =

12.5 ppg)

0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @

7000 psi)

0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	łT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water	to surface,	option 2 wi	II be utilized		
Option 2 LEAD	2,020'	65/35 Poz + 6% Gel + 10 pps gilsonite	190	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	4,146'	Premium Lite II +0.25 pps	330	35%	12.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	5,400'	50/50 Poz/G + 10% salt + 2% gel	1,280	35%	14.30		1.31
		+ 0.1% R-3					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

Nick Spence / Danny Showers / Chad Loesel

DRILLING SUPERINTENDENT:

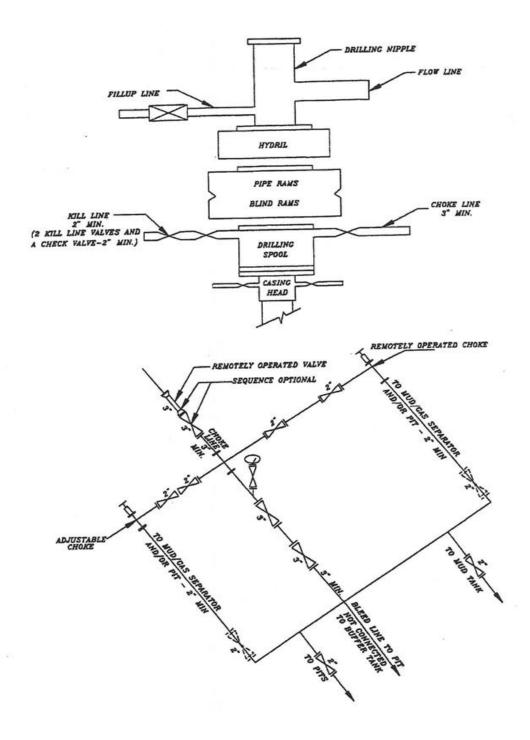
Kenny Gathings / Lovel Young

DATE:

DATE:

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A
NBU 922-30L1CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

	FORM 9				
ı	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463				
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30L1CS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047395400000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2085 FSL 0783 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Mer	ridian: S	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
5/25/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
MIRU AIR RIG ON 5 SURFACE CASING	COMPLETED OPERATIONS. Clearly show 5/22/2012. DRILLED SURFAC AND CEMENTED. WELL IS WA NT JOB WILL BE INCLUDED W REPORT.	CE HOLE TO 2655'. RAN AITING ON ROTARY RIG.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY May 25, 2012		
NAME (PLEASE PRINT)	PHONE NUMI				
Cara Mahler	720 929-6029	Regulatory Analyst I			
SIGNATURE N/A		DATE 5/25/2012			

	STATE OF UTAH DEPARTMENT OF NATURAL RESOUR			FORM 9		
ı	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463					
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
Do not use this form for procurrent bottom-hole depth, IFOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.	y deepe zontal la	en existing wells below aterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		NE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5NATUBRAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2085 FSL 0783 FWL				COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Me	eridian: \$	S	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE NA	TURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION			TYPE OF ACTION			
	ACIDIZE		TER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	СН	HANGE TUBING	CHANGE WELL NAME		
	CHANGE WELL STATUS	☐ cc	DMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ FR	RACTURE TREAT	NEW CONSTRUCTION		
	OPERATOR CHANGE	PL	UG AND ABANDON	PLUG BACK		
SPUD REPORT	PRODUCTION START OR RESUME	RE	ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SII	DETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	U VE	ENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF	☐ sı	TA STATUS EXTENSION	APD EXTENSION		
7/6/2012	WILDCAT WELL DETERMINATION		THER	OTHER:		
			··· ·	<u>'</u>		
	month of June 2012. Surfa	-		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 11, 2012		
NAME (PLEASE PRINT)	PHONE NUM	IBER	TITLE			
Jaime Scharnowske	720 929-6304		Regulartory Analyst			
SIGNATURE N/A			DATE 7/6/2012			

RECEIVED: Jul. 06, 2012

Sundry Number: 28139 API Well Number: 43047395400000

	FORM 9					
ı	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463					
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
	oposals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PHon Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2085 FSL 0783 FWL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH	IIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Meridian	: S	STATE: UTAH			
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
Approximate date from this class.	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION			
7/26/2012	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
		OTHER	OTHER: ACTS PIT			
44 DESCRIPE PROPOSED OR			,			
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2655' TO 9520' ON 7/24/2012. RAN 4-1/2" 11.6# I-80 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED SST 54 RIG ON 7/26/2012 @ 6:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES. THE PIT ON THIS LOCATION WILL BE REFURBISHED AND UTILIZED AS PART OF THE ACTS SYSTEM. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 30, 2012						
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I				
SIGNATURE N/A		DATE 7/27/2012				

	FORM 9				
ı	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463				
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:				
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES		
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4. LOCATION OF WELL FOOTAGES AT SURFACE: 2085 FSL 0783 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSW Section:	tip, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Meridian	n: S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	NATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	_ ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
SUBSEQUENT REPORT	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
Date of Work Completion:	L DEEPEN L	FRACTURE TREAT	☐ NEW CONSTRUCTION		
	☐ OPERATOR CHANGE ☐	PLUG AND ABANDON	L PLUG BACK		
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	L TEMPORARY ABANDON		
✓ DRILLING REPORT	L TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
Report Date: 9/5/2012	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
37372312	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
No Activity for	COMPLETED OPERATIONS. Clearly show all post the month of August 2012. W	ell TD at 9,520.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 11, 2012		
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulartory Analyst			
SIGNATURE		DATE			
N/A		9/5/2012			

Sundry Number: 30372 API Well Number: 43047395400000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463
SUNDR	RY NOTICES AND REPORTS (ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	posals to drill new wells, significantly d reenter plugged wells, or to drill horizon n for such proposals.	eepen existing wells below tal laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 922-30L1CS
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4. LOCATION OF WELL FOOTAGES AT SURFACE: 2085 FSL 0783 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Merid	ian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
✓ DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
10/2/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
	COMPLETED OPERATIONS. Clearly show a	Il pertinent details including dates, c	'
Started	I completing the well. Well T	o at 9,520.	Accepted by the
			Utah Division of Oil, Gas and Mining
			FOR RECORD ONLY
			October 03, 2012
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBE 720 929-6857	R TITLE Regulatory Analyst II	
SIGNATURE	120 929-0001	DATE	
N/A		10/2/2012	

Sundry Number: 31338 API Well Number: 43047395400000

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MIR		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-0463
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	h Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2085 FSL 0783 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSW Section:	HIP, RANGE, MERIDIAN: 30 Township: 09.0S Range: 22.0E Mer	idian: S	STATE: UTAH
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	ACIDIZE	ALTER CASING	CASING REPAIR
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	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
10/23/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
42 DESCRIPE PROPOSED OR	COMPLETED OPERATIONS. Clearly show		<u> </u>
The subject wel	I was placed on production I History will be submitted w Report.	on 10/23/2012. The	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 29, 2012
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUME 720 929-6857	BER TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 10/25/2012	

Form 3160-4 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

	WELL (COMPL	ETION C	R REC	OMF	PLETIC	N REF	PORT	AND L	OG			ease Serial I ITU463	No.	
la. Type o	f Well	Oil Well	🔀 Gas	Well	☐ Dry	0	ther					6. If	Indian, All	ottee or	Tribe Name
b. Type o	f Completion	☑ N Othe	ew Well r	☐ Work	Over	☐ De	epen	☐ Plug	g Back	Diff.	Resvr.		nit or CA A		ent Name and No.
2. Name of KERR	f Operator MCGEE OIL	. & GAS (ONSHORE	-Mail: lin			NDSEY / nadarko		ZIER				ease Name IBU 922-3		
3. Address	PO BOX 1 DENVER,		17					hone No 720-92	o. (include 9-6857	area code	•)	9. A	PI Well No		43-047-39540
4. Location	of Well (Re	port locati	on clearly ar	d in acco	rdance	with Fed	eral requi	rements)*			10. I	ield and Po	ool, or I	Exploratory
At surfa			L 783FWL				187861 V	V Lon				11.5	Sec., T., R.,	M., or	Block and Survey 9S R22E Mer SLB
At top p	orod interval i						\\	. 4				12. (County or P		13. State
At total		SW Lot 3	1954FSL				1 1451		Complete	1		1	INTAH	חב אד	UT 3, RT, GL)*
14. Date S 05/03/2	pudded 2012			ate T.D. R /24/2012		1		□ D &	Complete A 🔯 1 3/2012	ta Ready to I			49	71 GL	5, K1, GL)
18. Total I		MD TVD	9520 9515			ıg Back T	.D.:	MD TVD	946 945	55		_	dge Plug Se	7	MD TVD
21. Type H CBL/C	Electric & Oth CL/GR/TEM	er Mechar P	ical Logs R	un (Subm	it copy	of each)				22. Was Was Dire	well core DST run? ctional Su	d? rvey?	X No X No □ No	□ Yes □ Yes ☑ Yes	(Submit analysis) (Submit analysis) (Submit analysis)
23. Casing a	nd Liner Reco	ord <i>(Repo</i>	rt all strings	set in we	ll)										
Hole Size	Size/G	rade	Wt. (#/ft.)	Top (MD)		Bottom (MD)	Stage Co Dep		1	f Sks. & f Cement	Slurry (BE		Cement '	Гор*	Amount Pulled
20.000		000 STL	36.7		<u> </u>	40			ļ	2					
11.000		25 IJ-55	28.0		0	2641			L	57				0 1650	
7.875	4.	500 -80	11.6	_	0	9507				147	4			1050	
	 				+			· · · · · ·	-						
	 				\top										
24. Tubing	Record										- 				
Size	Depth Set (M		cker Depth	(MD)	Size	Dept	h Set (MI) F	acker Dep	th (MD)	Size	De	pth Set (M	D)	Packer Depth (MD)
2.375		8914				1 26	Perforati	on Reco	ord		J	<u> </u>		<u></u>	
	ing Intervals		Tom		Bottor				Interval	T	Size	٦,	No. Holes	I	Perf. Status
	ormation WASA	тсн	Тор	6069		328	101	Toraccu	6069 TO	7328		60		OPE	
<u>A)</u> B)	MESAVE			7355		302			7355 TO		0.3			OPE	
C)															
D)														L	
27. Acid, F	racture, Treat	ment, Cen	ent Squeeze	Etc.			,							RE	CEIVED
	Depth Interva		02 PUMP 1	0.000.00	1 0 01 1/	OK HOO A	ND 206 7		mount and					0.3496	. 0 0 2012
	60	69 10 93	302 POWP	2,200 00	LO SLIC	JK 1120 A	140 290,7	07 LB3	30/30 011	AWA OAI				NOV	£ 0 2012
							_						ום	V.OF	BUNNING SAB, HC
	tion - Interval							1-11-		1		T			
Date First Produced 10/23/2012	Test Date 10/24/2012	Hours Tested 24	Test Production	Oil BBL 0.0	Gas MCI 2		Water 3BL 1152.0	Oil G Corr.		Gas Gravi	ty	Product	ion Method FLOV	VS FRO	DM WELL
Choke Size	Tbg. Press. Flwg. 1900	L	24 Hr. Rate	Oil BBL	Gas MCI	F I	Water BBL	Gas:C Ratio	bil		Status PGW				
20/64 28a Produc	si ction - Interva	2423.0	1	0		2759	1152			1	- 344				
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCI		Water BBL	Oil G Corr.		Gas Gravi	ty	Product	ion Method		
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL		Water 3BL	Gas:C Ratio	Gas:Oil Well Status							

28h Produ	action - Interv	ral C	/ 		· · · · · ·							
Date First	Test	Hours	Test	Oil	Gas	Water	Oil Gravity		las Iravity	Production Method		
Produced	Date	Tested	Production	BBL	MCF	BBL	Corr. API	[ravity			
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	V	Vell Status			
28c. Produ	action - Interv	al D	1 -	L	1		<u> </u>					
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API		las Iravity	Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	V	Vell Status			
29. Dispos	sition of Gas	Sold, used j	or fuel, vent	ed, etc.)		<u>.,l</u>	L					
	ary of Porous	Zones (Inc	lude Aguife	rs):					31. For	mation (Log) Ma	rkers	
Show a	all important	zones of po	rosity and c	ontents there	eof: Cored i e tool open,	intervals and a , flowing and s	ll drill-stem hut-in pressure	es				
	Formation		Тор	Bottom		Description	s, Contents, etc).		Name		Top Meas. Depth
The fir surfac LTC c	e hole was o	the surfac drilled with from 4932	e hole was an 11 in. b ft. to 9507	drilled with it. DQX cs	a was run	bit. The ren from surface ronological w	to 4932 ft;		BIR MA WA	EEN RIVER ID'S NEST HOGANY SATCH SAVERDE		1401 1760 2245 4704 7355
1. Ele	enclosed attacetrical/Mecha	nical Logs		-		2. Geologic I	•		3. DST Rep	oort	4. Direction	al Survey
5. Sur	ndry Notice fo	or plugging	and cement	verification		6. Core Anal	ysis		7 Other:			
			Electi	ronic Subm For KERR	ission #160	535 Verified	by the BLM W DNSHORE L,	Vell Info sent to	ormation Sy		ched instructio	ns):
Name	(please print)	<u> FINDSE A</u>	A FRAZIE	К		··· /·· ·	11ue <u>F</u>	LGUA	ILI VIXI AIV	<u> </u>		
Signat	ture	(Electron	c Submiss	on)			Date <u>1</u>	1/15/2	012			··. · · · · · · · · · · · · · · · · · ·

Title 18 U of the Uni	S.C. Section ted States any	1001 and 7 false, ficti	Title 43 U.S. tious or frad	C. Section 1 ulent statem	212, make ents or repr	it a crime for a resentations as	any person know to any matter v	wingly within i	and willfully ts jurisdiction	to make to any d	epartment or a	gency

Operation Summary Report

Spud Date: 5/22/2012 Well: NBU 922-30L1CS BLACK Rig Name No: SST 54/54, CAPSTAR 310/310 Site: NBU 922-30L PAD Project: UTAH-UINTAH End Date: 7/26/2012 Event: DRILLING Start Date: 4/30/2012

UM: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2085/W/0/783/0/0

Active Datum: R .evel)	bove Mean S	ea	UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2085/W/0/783/0/0								
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)			
5/22/2012		- 15:00	2.50	MIRU	01	С	Р	MIRU			
	15:00	- 18:00	3.00	PRPSPD	14	Α	Р	WELD ON CONDUCTOR & RIG UP FLOWLINE			
		- 19:30	1.50	PRPSPD	06	Α	P	PU 12.25" BIT & 8" MUD MOTOR & TIH			
	19:30	- 21:00	1.50	DRLSUR	02	В	Р	DRILL 12.25" SURFACE HOLE F/ 49'- 210' ROP= 161' @ 107 FPH WOB= 14/22K RPM= 55/105 SPP=800/500 GPM= 595 TRQ= 2600/1900 PU/SO/ROT = 49/46/47 NO LOSSES			
							_	HOLE IN GOOD SHAPE			
		- 21:30	0.50	DRLSUR	06	Α	Р	TOOH & LAY DOWN 12>25" BIT			
		- 23:00	1.50	DRLSUR	06	Α	P	PICK UP 11" BIT & DIR TOOLS, SCRIBE, & TIH			
5/23/2012		- 0:00 - 9:30	9.50	DRLSUR	02	D	P	DRILL 11" SURFACE HOLE F/ 210'-314' ROP= 104' @ 1104 FPH WOB= 14/22K RPM= 55/105 SPP=900/600 GPM= 595 TRQ= 2400/2200 PU/SO/ROT = 49/46/47 NO LOSSES HOLE IN GOOD SHAPE DRILL 11" SURFACE HOLE F/ 314'-1507' ROP= 1193' @ 126 FPH WOB= 24/28K			
	9:30	- 10:00	0.50	DRLSUR	07	A	Р	RPM= 55/105 SPP=1200/900 GPM= 595 TRQ= 2800/2400 PU/SO/ROT =92/59/74 NO LOSSES HOLE IN GOOD SHAPE SERVICE RIG & EQUIPMENT			
	10:00	- 19:00	9.00	DRLSUR	02	D	Р	DRILL 11" SURFACE HOLE F/ 1507'- 2320'			
								ROP= 793' @ 88 FPH WOB= 24/28K RPM= 55/105 SPP=1200/900 GPM= 595 TRQ= 2800/2400 PU/SO/ROT =105/83/94 NO LOSSES			

Z

19:00 - 20:00

1.00

DRLSUR

HOLE IN GOOD SHAPE

OUT OF DRIVE LINE

WORK ON HYDRAULIC PUMP /// BOLTS BACKING

Operation Summary Report Spud Date: 5/22/2012 Well: NBU 922-30L1CS BLACK Rig Name No: SST 54/54, CAPSTAR 310/310 Site: NBU 922-30L PAD Project: UTAH-UINTAH End Date: 7/26/2012 Event: DRILLING Start Date: 4/30/2012 UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2085/W/0/783/0/0 Active Datum: RKB @4,989.00usft (above Mean Sea Level) Phase Code P/U Operation Date MD From Time Duration Sub Start-End (hr) Code (usft) - 23:00 P 20:00 DRLSUR 02 D DRILL 11" SURFACE HOLE F/ 2320'- 2655' 3.00 ROP= 335' @ 112 FPH WOB= 24/28K RPM= 55/105 SPP=1200/900 GPM= 595 TRQ= 2800/2400 PU/SO/ROT =117/85/100 NO LOSSES HOLE IN GOOD SHAPE FINAL POSITION=1.5' RIGHT & 5' HIGH ROTATE =94% /// SLIDE 6% CIRC & COND. HOLE FOR 8.625" SURFACE CSG 23:00 - 23:30 0.50 DRLSUR 05 F P Α Р LAY DOWN DRILL STRING 23:30 DRI SUR 06 - 0:00 0.50 LAY DOWN DRILL STRING & DIR TOOLS 0:00 DRLSUR 06 Α Р 5/24/2012 - 2:30 2.50 REPAIR HOSE ON TOP DRIVE Z 2:30 - 3:00 0.50 DRLSUR 08 Α 3:00 - 5:00 2.00 **CSGSUR** 12 C Р PJSM /// RUN 60 JT'S, 8.625", 28#, J-55, LT&C CSG /// SHOE SET @ 2631' & BAFFLE @ 2585' 5:00 CSGSUR 05 F P CIRC 8.625" CSG @ 2631" - 5:30 0.50 5:30 CSGSUR Ε Ρ PJSM /// TEST LINES TO 2000 PSI /// PUMP 40 BBLS - 7:00 1.50 12 WATER AHEAD FOLLOWED BY 20 BBL GEL WATER FLUSH /// LEAD= 250 SX CLASS G CMT @ 11.0 WT & 3.82 YIELD /// TAIL= 200 SX CLASS G CMT @ 15.8 WT & 1.15 YIELD /// DROP PLUG & DISPLACE W/ 161 BBL'S WATER /// PLUG DN @ 06:55 05/24/2012 /// BUMP PLUG W/ 900 PSI /// FINAL LIFT = 620 PSI /// CHECK FLOATS-HELD W/ .5 BBL'S BACK /// FULL RETURNS THRU OUT JOB /// 21 BBL'S CMT TO SURFACE 7:00 **CSGSUR** CUT OFF CONDUCTOR & HANG 8.625" SURFACE - 8:00 1.00 14 CSG RUN 200' OF 1" AND TOP OUT W/ 125 SX CLASS G Р 8:00 **CSGSUR** E - 9:00 1.00 12 CMT @ 15.8 WT & 1.15 YIELD /// CMT STAYED @ SURFACE /// RELEASE RIG @ 09:00 TO THE MAVERICK 921-27D-HZ SKID RIG TO NBU 922-30L1CS(WELL 6 OF 6) 14:30 MIRU 01 С 7/20/2012 - 15:30 1.00 15:30 - 17:00 1.50 MIRU 14 A P NIPLE UP B.O.P., RIG UP CAMERON QUICK CONNECT, FLAIR LINES, CHOKE LINE, KILL LINE, FLOW LINE. Р HOLD SAFETY MEETING WITH TESTER. MIRU 17:00 - 23:00 6.00 15 RIG UP TESTER AND TEST DART VALVE, LOWER TOP DRIVE VALVE, I-BOP VALVE, TIW VALVE PIPE RAMS AND INSIDE BOP VALVES TO 5000 PSI FOR 10 MIN AND 250 LOW FOR 5 MIN. TEST ANNULAR TO 2500 PSI FOR 10 MIN AND 250 PSI FOR 5 MIN. TEST BLIND RAMS, HCR VALVE, OUTSIDE KILL LINE VALVE, CHECK VALVE, CHOKE MANIFOLD TO 5000 PSI FOR 10 MIN AND 250 PSI FOR 5 MIN. TEST CASING TO 1500 PSI FOR 5 MIN. RIG DOWN TESTER (MOVED OVER 500 BBLS OF DRILL WATER AND DE WATERING UNITS)

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Operation Summary Report

Well: NBU 922-	30L1CS	BLACK						Spud Date: 5/22/2012
Project: UTAH-I	JINTAH			Site: NBU	922-30L	PAD		Rig Name No: SST 54/54, CAPSTAR 310/310
Event: DRILLIN	G			Start Date	: 4/30/20	12		End Date: 7/26/2012
Active Datum: F Level)	RKB @4,9	89.00usft (ab	ove Mean Se	a	UWI: NV	V/SW/0/9/	/S/22/E/30	0/0/26/PM/S/2085/W/0/783/0/0
Date		Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
1997 1 400 0 400 10 400 1000		- 0:00	1.00	MIRU	09	Α	Р	SLIP AND CUT 50' OF DRILLING LINE.
7/21/2012	0:00	- 0:30	0.50	MIRU	14	В	P	PERFORMED PRE SPUD INSPECTION. PERFORM IADC ROTARY RIG INSPECTION. REVEW DIRECTIONAL PLANS AND PLATS AND VERIFY LAT/LONGS AND WELL ORDER VERIFY DIRECTIONAL DRILLERS PLAN IS THE MOS RECENT AND APPROVED VERSION REFERENCE WELLBORE DIAGRAMS FOR EXACT CASING DESIGN AND GENERAL OVERVEW OF WELLBORE, PRIOR TO SPUD.
	0:30	- 3:30	3.00	MIRU	06	Α	Р	INSTALL WEAR BUSHING. PREPARED BHA FOR TRIP. PICK UP HUNTING 1.50 BH .16 RPG MOTOR(SN-6223). MADE UP SMITH MDI 616 BIT W/ 6-15'S (SN JF9228)
								SCRIBED MOTOR. PICK UP DOUBLE PIN, NON MAC TOOL CARRIER AND EM SUB. ORIENT TOOLS, PICK UP HEAVY WEIGHT DRILL PIPE.
								INSTALL ROTATING RUBBER TRIP IN TO 2522' TAG CEMENT @ 2522'
	3:30	- 5:00	1.50	DRLPRO	02	F	Р	SPUD 07/21/2012 03:30 DRILL CEMENT AND FLOAT EQUIPMENT 2522'-2640' (FLOAT SHOE @ 2640'.) DRILLED CEMENT WITH 15K ON BIT, 450 GALLONS PER MINUTE, 50 ROTATION PER MINUTE.
	5:00	- 15:00	10.00	DRLPRC	02	D	Р	DRILL SLIDE 2664'- 4063' (1399', 140'/HR) WEIGHT ON BIT 15-22K. AVERAGE WEIGHT ON BIT 18K. ROTARY RPM 65. MUD MOTOR RPM 87. STROKES PER MINUTE 150 GALLONS PER MINUTE 544. ON/OFF PSI 940/874. DIFFERENTIAL 66. TORQUE ON/OFF 6522/5435. STRING WEIGHT UP/DOWN/ROT 90/65/70. DRAG 20K.
								DRILL OUT OF THE SHOE @ 3.59 INC. VERTICAL @ 2954'. 13' HIGH 8' LEFT OF LINE. SLIDE 175' AT 80'/HR. SLIDE 10% ROTATE 90%.
								RUNNING 2 CENTRIFUGES AND DE WATERING.(W 8.5 VIS 27.) USED 32 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 50 BBLS DRILL WATER INTO FORMATION. (LOSING 5 BBLS HR)
	15:00	- 15:30	0.50	DRLPRC	07	Α	P	NO FLARE. (BOP DRILL 35 SEC) RIG SERVICE, FUNCTION PIPE RAMS AND CROWN O-MATIC, EATON BRAKE TEMP & PSI, SERVICE TO DRIVE & CROWN.

11/12/2012 3:14:18PM

US ROCKIES REGION Operation Summary Report Spud Date: 5/22/2012 Well: NBU 922-30L1CS BLACK Rig Name No: SST 54/54, CAPSTAR 310/310 Site: NBU 922-30L PAD Project: UTAH-UINTAH Start Date: 4/30/2012 End Date: 7/26/2012 Event: DRILLING UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2085/W/0/783/0/0 Active Datum: RKB @4,989,00usft (above Mean Sea Level) P/U Operation Phase Code Date Time Duration Sub MD From Start-End Code (usft) 15:30 - 0:00 DRLPRC 8.50 02 D DRILL SLIDE 4063'-5267' (1204', 141'/HR) WEIGHT ON BIT 15-22K. AVERAGE WEIGHT ON BIT ROTARY RPM 55, MUD MOTOR RPM 87. STROKES PER MINUTE 150 GALLONS PER MINUTE 544. ON/OFF PSI 1993/1654. DIFFERENTIAL 339. TORQUE ON/OFF 9159/7493. STRING WEIGHT UP/DOWN/ROT 113/80/90. DRAG HOLDING VERTICAL @ 0.06 INC. VERTICAL @ 2954'. 15' NORTH 9' WEST OF LINE. SLIDE 175' AT 80'/HR. SLIDE 10% ROTATE 90%. RUNNING 2 CENTRIFUGES AND DE WATERING.(WT 8.5 VIS 27.) USED 45 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 60 BBLS DRILL WATER INTO FORMATION. (LOSING 7 BBLS HR) NO FLARE. (BOP DRILL 35 SEC) DRILL SLIDE 5267'-6538' (1271', 133'/HR) 7/22/2012 0:00 - 9:30 9.50 DRLPRC 02 WEIGHT ON BIT 18-24K. AVERAGE WEIGHT ON BIT ROTARY RPM 55, MUD MOTOR RPM 87. STROKES PER MINUTE 150 GALLONS PER MINUTE ON/OFF PSI 2143/2051, DIFFERENTIAL 295. TORQUE ON/OFF 8739/7297. STRING WEIGHT UP/DOWN/ROT 113/80/90. DRAG 23K. HOLDING VERTICAL @ 0.88 INC. VERTICAL @ 2954', 5.4' NORTH 5.4' WEST OF LINE. SLIDE 25' AT 80'/HR. SLIDE 3% ROTATE 97%. RUNNING 2 CENTRIFUGES AND DE WATERING.(WT 8.5 VIS 27.) USED 45 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 60 BBLS DRILL WATER INTO FORMATION. (LOSING 7 BBLS HR) NO FLARE. CURRENTLY NOT RUNNING PRESSURE CONTROLLED DRILLING 9:30 DRLPRC RIG SERVICE, FUNCTION PIPE RAMS AND CROWN - 10:00 0.50 O-MATIC, CHECK EATON BRAKE TEMP & PSI,

SERVICE TOP DRIVE & CROWN.

Well: NBU 922-3	BOL1CS BLACK						Spud Date: 5/2	22/2012
Project: UTAH-U			Site: NBL	J 922-30L	PAD			Rig Name No: SST 54/54, CAPSTAR 310/310
Event: DRILLING			Start Date	e: 4/30/20	012			End Date: 7/26/2012
Active Datum: RI	KB @4,989.00usft (ab	ove Mean S	ea	UWI: N	W/SW/0/9	9/S/22/E/3	/0/0/26/PM/S/2	085/W/0/783/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	10:00 - 16:30	6.50	DRLPRC	02	D	Р		DRILL SLIDE 6538'-7040' (502', 77'/HR) WEIGHT ON BIT 18-24K. AVERAGE WEIGHT ON BIT 22K. ROTARY RPM 55. MUD MOTOR RPM 75. STROKES PER MINUTE 130 GALLONS PER MINUTE 471. ON/OFF PSI 1730/1703. DIFFERENTIAL 252. TORQUE ON/OFF 10203/8826. STRING WEIGHT UP/DOWN/ROT 180/100/140. DRAG 40K.
								HOLDING VERTICAL @ 0.75 INC. VERTICAL @ 2954'. 4.2' NORTH 4.1' WEST OF LINE. SLIDE 125' AT 80'/HR. SLIDE 15% ROTATE 85%.
								RUNNING 2 CENTRIFUGES AND DE WATERING.(WT 8.5 VIS 27.) USED 36 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 60 BBLS DRILL WATER INTO FORMATION. (LOSING 10 BBLS HR)
								NO FLARE, CURRENTLY NOT RUNNING PRESSURE CONTROLLED DRILLING.
	16:30 - 18:30	2.00	DRLPRC	05	Α	X		***FLUID LOSS: LOST 150 BBLS OF MUD @ 7040', TRANSITION INTO THE MESAVERDE FROM THE WASATCH PICKED UP OFF BOTTOM AND SLOWED PUMP RATE TO 218 GPM PUMPED 3-30 BBL SWEEPS CONSISTING OF 5 BAGS OF DRILLING PAPER AND 10 BAGS OF MULTI SEAL AND 1/3 BUCKET OF ANCHO DRILL.
	18:30 - 19:30	1.00	DRLPRC	02	D	P		REGAINED RETURNS DRILL SLIDE 7040'-7140' (100', 100'/HR) WEIGHT ON BIT 18-24K. AVERAGE WEIGHT ON BIT 22K. ROTARY RPM 55. MUD MOTOR RPM 75. STROKES PER MINUTE 130 GALLONS PER MINUTE 471. ON/OFF PSI 1730/1703. DIFFERENTIAL 252. TORQUE ON/OFF 10203/8826. STRING WEIGHT UP/DOWN/ROT 180/100/140. DRAG 40K. HOLDING VERTICAL @ 0.75 INC. VERTICAL @ 2954'. 3.5' NORTH 3.8' WEST OF LINE. SLIDE 0% ROTATE 100%. RUNNING 2 CENTRIFUGES AND DE WATERING.(WT 8.5 VIS 27.) USED 6 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 10 BBLS DRILL WATER INTO FORMATION. (LOSING 10 BBLS HR)

11/12/2012 3:14:18PM

Well: NBU 922-	30L1CS BLACK		<u> </u>	or other sections		Spud Da	ate: 5/22/2012
Project: UTAH-l			Site: NBU	922-30L	. PAD	4	Rig Name No: SST 54/54, CAPSTAR 310/310
Event: DRILLIN	 G		Start Date	: 4/30/20	12		End Date: 7/26/2012
Active Datum: R	KB @4,989.00usft (al	oove Mean Se	ea	UWI: N\	N/SW/0/9	/S/22/E/30/0/0/26/F	PM/S/2085/W/0/783/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U MD F (us	
	19:30 - 21:00	1,50	DRLPRC	22	L	Z	***FAILURE: MWD @ 7140' LOST COMMUNICATION WITH TOOL REPLACED TRANSCEIVER, WORKED THROUGH SOME MORE COMMUNICATION ISSUES DUE TO NEW TRANSCEIVER
	21:00 - 0:00	3.00	DRLPRC	02	D	P	DRILL SLIDE 7140'-7267' (127', 42'/HR) WEIGHT ON BIT 18-24K. AVERAGE WEIGHT ON BIT 22K. ROTARY RPM 55. MUD MOTOR RPM 75. STROKES PER MINUTE 130 GALLONS PER MINUTE 471. ON/OFF PSI 1800/1769. DIFFERENTIAL 274. TORQUE ON/OFF 9442/8906. STRING WEIGHT UP/DOWN/ROT 190/110/145. DRAG 45K. HOLDING VERTICAL @ 0.19 INC. VERTICAL @ 2954'. 2.5' NORTH 2.5' WEST OF LINE. SLIDE 52' AT 40'/HR. SLIDE 10% ROTATE 90%. RUNNING 2 CENTRIFUGES AND DE WATERING.(WT 8.5 VIS 27.) USED 8 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 30 BBLS DRILL WATER INTO FORMATION. (LOSING 10 BBLS HR) NO FLARE. CURRENTLY NOT RUNNING PRESSURE CONTROLLED DRILLING.
7/23/2012	0:00 - 6:00	6.00	DRLPRC		D	P	DRILL SLIDE 7267'-7548' (281', 46'/HR) WEIGHT ON BIT 18-24K. AVERAGE WEIGHT ON BIT 22K. ROTARY RPM 55. MUD MOTOR RPM 75. STROKES PER MINUTE 130 GALLONS PER MINUTE 471. ON/OFF PSI 1800/1769. DIFFERENTIAL 274. TORQUE ON/OFF 9442/8906. STRING WEIGHT UP/DOWN/ROT 190/110/145. DRAG 45K. HOLDING VERTICAL @ 0.19 INC. VERTICAL @ 2954'. 12.5' NORTH 0.2' WEST OF LINE. SLIDE 71' AT 30'/HR. SLIDE 12% ROTATE 88%. RUNNING 2 CENTRIFUGES AND DE WATERING.(WT 8.5 VIS 27.) USED 18 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 60 BBLS DRILL WATER INTO FORMATION. (LOSING 10 BBLS HR) NO FLARE. CURRENTLY NOT RUNNING PRESSURE CONTROLLED DRILLING.

					Opera	tion S	umm	ary Report	
Well: NBU 922-30	L1CS B	LACK		<u> </u>		. 1 <u>. 1. 1 </u>	<u> </u>	Spud Date: 5/22	/2012
Project: UTAH-UI	NTAH			Site: NBU	922-30L	PAD			Rig Name No: SST 54/54, CAPSTAR 310/310
Event: DRILLING				Start Date	: 4/30/20	12			End Date: 7/26/2012
Active Datum: RKi	B @4,9	89.00usft (at	ove Mean S	ea	UWI: NV	V/SW/0/9	9/S/22/E/:	30/0/0/26/PM/S/208	35/W/0/783/0/0
Date	新加州 经收益帐户	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:00	- 15:00	9.00	DRLPRC	02	D	P		DRILL SLIDE 7548'-8062' (514', 57'/HR) WEIGHT ON BIT 18-24K. AVERAGE WEIGHT ON BIT 22K. ROTARY RPM 55. MUD MOTOR RPM 75. STROKES PER MINUTE 130 GALLONS PER MINUTE 471. ON/OFF PSI 1740/1672. DIFFERENTIAL 290. TORQUE ON/OFF 11471/1052. STRING WEIGHT UP/DOWN/ROT 210/140/175. DRAG 35K.
									HOLDING VERTICAL @ 0.19 INC. VERTICAL @ 2954'. 25' NORTH 0.5' WEST OF LINE. SLIDE 21' AT 30'/HR. SLIDE 5% ROTATE 95%. LEFT THE TARGET @ 8000' @ .81 DEG
									RUNNING 2 CENTRIFUGES AND DE WATERING WITH 1 CENTRAFUGE AND CONVENTIONAL WITH 1 CENTRAFUGE.(WT 8.7 VIS 32.)
,									USED 25 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 90 BBLS DRILL WATER INTO FORMATION. (LOSING 10 BBLS HR)
									10' FLARE FOR 3 HOURS-21404 SCF. CURRENTLY NOT RUNNING PRESSURE CONTROLLED DRILLING.
	15:00	- 15;30	0.50	DRLPRC	07	Α	Р		RIG SERVICE, FUNCTION PIPE RAMS AND CROWN O-MATIC, CHECK EATON BRAKE TEMP & PSI, SERVICE TOP DRIVE & CROWN.
	15:30	- 0:00	8.50	DRLPRC	02	D	Р		DRILL SLIDE 8062'-8634' (572', 67'/HR) WEIGHT ON BIT 18-24K. AVERAGE WEIGHT ON BIT 22K. ROTARY RPM 55. MUD MOTOR RPM 75. STROKES PER MINUTE 130 GALLONS PER MINUTE 471. ON/OFF PSI 1740/1672. DIFFERENTIAL 290. TORQUE ON/OFF 11471/10252. STRING WEIGHT UP/DOWN/ROT 210/140/175. DRAG 35K.
									HOLDING VERTICAL @ 0.19 INC. VERTICAL @ 2954'. 21.2' NORTH 0.1' WEST OF LINE. SLIDE 18' AT 30'/HR. SLIDE 10% ROTATE 90%.
									RUNNING 2 CENTRIFUGES AND DE WATERING.(WT 8.5 VIS 27.) USED 25 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 80 BBLS DRILL WATER INTO FORMATION. (LOSING 10 BBLS HR)
· ·									10' FLARE FOR 8.5 HOURS-60,646 SCF. CURRENTLY NOT RUNNING PRESSURE CONTROLLED DRILLING.

Well: NBU 922-3	30L1CS BLAG	CK						Spud Date: 5/22	/2012
Project: UTAH-L				Site: NBU	922-30L	. PAD			Rig Name No: SST 54/54, CAPSTAR 310/310
Event: DRILLIN	3			Start Date	e: 4/30/20	012			End Date: 7/26/2012
Active Datum: R Level)		00usft (ab	ove Mean S)/S/22/E/30	/0/0/26/PM/S/208	35/N/0/783/0/0
Date	Tim Start-I		Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
7/24/2012	0:00 -	<u> </u>	9.00	DRLPRC	02	D	P	(USII)	DRILL SLIDE 8634-9013' (379', 63'/HR) WEIGHT ON BIT 18-24K. AVERAGE WEIGHT ON BIT 22K. ROTARY RPM 55. MUD MOTOR RPM 75. STROKES PER MINUTE 130 GALLONS PER MINUTE 471. ON/OFF PSI 1740/1672. DIFFERENTIAL 290. TORQUE ON/OFF 11471/10252. STRING WEIGHT UP/DOWN/ROT 210/140/175. DRAG 35K. HOLDING VERTICAL @ 1.69 INC. VERTICAL @ 2954'. 21.2' NORTH 0.1' WEST OF LINE. SLIDE 10' AT 30'/HR. SLIDE 3% ROTATE 97%. RUNNING 2 CENTRIFUGES AND NOT DE WATERING. (WEIGHT 8.8 VIS 34.) USED 21 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 60 BBLS DRILL WATER INTO FORMATION. (LOSING 10 BBLS HR) 20' FLAIR FOR 6 HOURS-184,763 SCF. CURRENTLY HOLDING 100 PSI ON CONNECTIONS AND 0 PSI DURRING DRILLING ON PRESSURE CONTROLLED DRILLING. DRILL SLIDE 9013'-9520' (507', 56'/HR) TD@ 07/24/2012 15:00 WEIGHT ON BIT 18-24K. AVERAGE WEIGHT ON BIT 22K. ROTARY RPM 50. MUD MOTOR RPM 75. STROKES PER MINUTE 130 GALLONS PER MINUTE 471. ON/OFF PSI 1892/1747. DIFFERENTIAL 87. TORQUE ON/OFF 12196/8188. STRING WEIGHT UP/DOWN/ROT 240/160/200. DRAG 40K. HOLDING VERTICAL @ 3.0 INC. VERTICAL @ 2954'. 9.3' SOUTH 17.8' EAST OF LINE. SLIDE 0' AT 0'/HR. SLIDE 0% ROTATE 100%. RUNNING 2 CENTRIFUGES AND NOT DE WATERING. (WEIGHT 8.8 VIS 34.) USED 21 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 60 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 60 BBLS DRILL WATER FOR HOLE VOLUME. LOSS 60 BBLS DRILL WATER INTO FORMATION. (LOSING 10 BBLS HR) 20' FLAIR FOR 9 HOURS-277,145 SCF. CURRENTLY HOLDING 200 PSI ON CONNECTIONS AND 100 PSI DURRING DRILLING ON PRESSURE

11/12/2012

Well: NBU 922-3	30L1CS BLACK						Spud Date: 5/2	22/2012	
Project: UTAH-U	JINTAH		Site: NBL	J 922-30L	. PAD			Rig Name No: SST 54/54, CAPSTAR 310/310	
vent: DRILLING	G		Start Date	e: 4/30/20	012			End Date: 7/26/2012	
Active Datum: R	KB @4,989.00usft (ab	ove Mean S	ea	UWI: N	W/SW/0/9	S/22/E/3	0/0/0/26/PM/S/2	085/W/0/783/0/0	
_evel)		sores en destal	798 2. 7 (2.747)		1 24 CO	ozwo.	1. 148 3 <u>5. 26</u> 4, 24 78		
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/Ü	MD From (usft)	Operation	
	15:00 - 20:00	5.00	EVALPR	05	A	Р		CIRCULATE AND CONDITION HOLE. RAISE MUD WT TO 11.3 TO CONTROL GAS. NO FLARE WITH 11.3 MUD. HOLE SEEPING 10 BBLS HR. PUMP LCM SWEEPS TO CONTROL SEEPAGE. LOSS 20 BBLS. MUD IN 11.3 VIS 38 / MUD OUT 11.3 VIS 37. MIX 2 30 BBL 13.3# DRY JOB AND PUMP.	
	20:00 - 0:00	4.00	EVALPR	06	E	Р		TRIP OUT OF HOLE. NO TIGHT HOLE. HOLE SEEPING DURRING TRIP OUT. NO FLOW ON FLOW CHECKS. LOSS ANOTHER 30 BBLS ON TRIP OUT.	
7/25/2012	0:00 - 2:30	2.50	EVALPR	06	E	Р		TRIP IN HOLE. NO BRIDGES. LOSS 20 BBLS ON TRIP IN HOLE. GOOD DISPLACEMENT THROUGH OUT TRIP. NO GAS ON TRIP IN.	
	2:30 - 5:30	3.00	EVALPR	05	Α	Р		CIRCULATE AND CONDITION HOLE. RAISE MUD WT TO 12.0 TO CONTROL GAS. NO FLARE WITH 12.0 MUD. HOLE SEEPING 10 BBLS HR. PUMP LCM SWEEPS TO CONTROL SEEPAGE. LOSS 20 BBLS. MUD IN 12.0 VIS 40 / MUD OUT 11.9 VIS 43. MIX 40 BBL 14.0# DRY JOB AND PUMP.	
	5:30 - 16:00	10.50	EVALPR	06	E	Р		TRIP OUT OF HOLE FOR CASING RUN. LAYING DOWN DRILL STRING. NO TIGHT HOLE. HOLE SEEPING DURRING TRIP OUT. NO FLOW ON FLOW CHECKS. LOSS ANOTHER 20 BBLS ON TRIP OUT. PULL ROTATING RUBBER, AND HEAVY WEIGHT DRILL PIPE. LAY DOWN DIRECTIONAL TOOL'S, BREAK BIT, LAY DOWN MOTOR.	
	16:00 - 16:30	0.50	EVALPR	06	D	P		FUNCTION BLIND /PIPE RAMS. PULL WEAR BUSHING. NO FLOW ON FLOW CHECKS, HOLE TOOK PROPER FILL ON TRIP OUT.	

11/12/2012 3:14:18PM

9

ell: NBU 922-	30L1CS BLACK						Spud Date: 5/2	2/2012						
oject: UTAH-l			Site: NBL	J 922-30L	PAD			Rig Name No: SST 54/54, CAPSTAR 310/310						
/ent: DRILLIN			Start Date	e: 4/30/20	012			End Date: 7/26/2012						
	KB @4,989.00usft (a	hove Mean S				9/S/22/E/3	0/0/0/26/PM/S/20	085/W/0/783/0/0						
evel)	(11) (Q+,000.000011 (C		-											
Date	Time	Duration	Phase	Code	Sub	P/U	MD From	Operation						
	Start-End	(hr)			Code		(usft)							
a ka managang mang salah dalah	16:30 - 23:30	7.00	EVALPR	12	С	P		HOLD SAFETY MEETING WITH KIMZY CASING. MAKE UP 4.5" L-80 LTC CLOSED FLOAT SHOE ON SHOE SHOE JOINT WITH THREAD LOCK. MAKE UP 4.5" L-80 CLOSED FLOAT COLLAR W THREAD LOCK ON TOP OF SHOE JOINT. RUN CENTRALIZERS ON FIRST 3 JOINTS AND EVERY THIRD JOINT FOR TOTAL OF 15 JOINTS. INSTALL ROTATING HEAD @ 1800'. RUN A TOTAL OF 103 JOINTS OF 4.5" 11.6# I-80 LTC CASING. MAKE UP DQX CROSS OVER JOINT AND RIG UP TORQUE TURN, PERFORM DUMP TEST CONTINUED TO RUN 4.5" 11.6# I-80 DQX CSG WITH TORQUE TURN. RUN A TOTAL OF 111 JOINTS OF 4.5" 11.6# I-80						
								DQX CSG WITH TORQUE TURN. LAY DOWN TWO JOINTS OF DQX BAD BOX/PIN, REPLACED WITH TWO JOINTS FROM STOCK PILE. RUN CASING TO BOTTOM. TOTAL OF 103 JOINTS OF 4.5" 11.6# I-80 LTC CASING.						
								CASING. TOTAL OF 111 JOINTS OF 4.5" 11.6# I-80 DQX CASING TOTAL OF 114 JOINTS OF CASING						
								SET FLOAT SHOE @ 9507.42' KB. SET TOP OF FLOAT COLLAR @ 9460.31' KB. SET TOP OF MESA MARKER JT @ 7273.46' KB. SET TOP DQX TO LTC CROSS OVER JT @ 4910.83' KB.						
	23:30 - 0:00	0.50	EVALPR	12	Α	Р		CIRCULATE AND CONDITION HOLE. MUD IN 11.4 VIS 38 / MUD OUT 11.3 VIS 40. MUD COMING OVER SHAKERS IS CLEAN. 10' FLARE ON BOTTOMS UP FOR 1/2 HOUR-3,567 SCF						
7/26/2012	0:00 - 0:30	0.50	EVALPR	12	Α	·P		CIRCULATE AND CONDITION HOLE. MUD IN 11.4 VIS 38 / MUD OUT 11.3 VIS 40. MUD COMING OVER SHAKERS IS CLEAN. 10' FLARE ON BOTTOMS UP FOR 1/2 HOUR-3,567 SCF						
								HOLD SAFETY MEETING WITH BAKER HUGHES CEMENTERS. TIE BAKER HUGHES INTO CEMENT HEAD.						

11/12/2012 3:14:18PM

10

		US ROCK	(IES REGION	
	Ор	eration S	ummary Report	
Well: NBU 922-30L1CS BLACK			Spud Date: 5/2	2/2012
Project: UTAH-UINTAH	Site: NBU 922	-30L PAD		Rig Name No: SST 54/54, CAPSTAR 310/310
Event: DRILLING	Start Date: 4/3			End Date: 7/26/2012
Active Datum: RKB @4,989.00usft (above Mean S Level)	ea UW	/1: NW/SW/0/9/	S/22/E/30/0/0/26/PM/S/26	085/W/0/783/0/0
Date Time Duration Start-End (hr)	Phase Co	ode Sub Code	P/U MD From (usft)	Operation
0:30 - 4:00 3.50	CSG 1	2 E	P	PRESSURE TEST LINES TO 5000 PSI. PUMP 25 BBLS OF FRESH WATER. PUMP 177 BBLS (442 SX) OF 12.0# 2.26 YIELD 12.48 GAL/SK OF LEAD CEMENT. PUMP 241 BBLS (1035 SX) OF 14.3# 1.31 YIELD 5.90 GAL/SK POZ 50/50 TAIL CEMENT. SHUT DOWN AND FLUSH LINES. DROP TOP PLUG DISPLACE W/ 147.1 BBLS OF FRESH WATER TREATED WITH CLAYFIX AND MAGNACIDE. PUMPED DISPLACEMENT WITH 0 BBLS CEMENT TO SURFACE AND 5' FLAIR THROUGH OUT. LIFT PSI OF 2111 @ 3 BBLS MINUTE. BUMP PLUG 3146 PSI. PRESSURE HELD 5 MINUTES. FLOAT HELD. FLOW BACK 1.5 BBLS.
4:00 - 6:00 2.00	CSG 1	4 A	P	ESTIMATED TOP OF CEMENT FOR LEAD SURFACE @ 15', ESTIMATED TOP OF CEMENT FOR TAIL 4000'. RIG DOWN CEMENTERS. FLUSH STACK WITH FRESH WATER. STORED 780 BBLS OF 11.4# MUD IN UPRIGHTS. REMOVE FLOW LINE. NIPPLE DOWN BOPE. HOLD SAFETY MEETING WITH CAMERON SLIP HAND. PULL LANDIN JOINT AND SET PACK OFF. LAY DOWN LANDING JOINT. CLEANED PITS WHILE RUNNING CASING. RELEASE RIG 07/26/2012 06:00.

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 922-30L1CS BLACK	Wellbore No.	ОН	
Well Name	NBU 922-30L1CS	Wellbore Name	NBU 922-30L1CS	
Report No.	1	Report Date	5/22/2012	
Project	UTAH-UINTAH	Site	NBU 922-30L PAD	
Rig Name/No.		Event	COMPLETION	
Start Date	9/25/2012	End Date	10/23/2012	
Spud Date	5/22/2012	Active Datum	RKB @4,989.00usft (above Mean Sea Level)	
UWI	NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2085/W/0/78	33/0/0		

1.3 General

Contractor	Job Method	Supervisor	
Perforated Assembly	Conveyed Method		

1.4 Initial Conditions

Fluid Type		Fluid Density	
Surface Press		Estimate Res Press	
TVD Fluid Top		Fluid Head	
Hydrostatic Press		Press Difference	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	6,069.0 (usft)-9,302.0 (usft	Start Date/Time	9/24/2012	12:00AM
No. of Intervals	78	End Date/Time	9/24/2012	12:00AM
Total Shots	288	Net Perforation Interval		90.00 (usft)
Avg Shot Density	3.20 (shot/ft)	Final Surface Pressure		
		Final Press Date		

2 Intervals

2.1 Perforated Interval

Date Formation/ CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	STATE OF COMPANY	STATE OF THE REAL PROPERTY.	Misfires/ Diamete Ca Add Shot r (in)	arr Type /Stage No Carr Size (in)	Phasing (°)	Charge Desc /Charge Charge Reason Misrun Manufacturer Weight (gram)
9/24/2012 WASATCH/	1	6,069.0	6,071.0	4.00	0.360 EXP	3.375	90.00	23.00 PRODUCTIO
12:00AM			!		1			N

November 12, 2012 at 3:16 pm 1 OpenWells

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S	MD Top (usft)	MD Base (usft)	Shot Density	Misfires/ Add. Shot	Diamete r	Carr Type /Stage No	Size	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Weight	Reason	Misrun
0/04/0040	WASATCH/	4	(usft)	6,190.0	6,192.0	(shot/ft) 4.00		(in) 0.360	EVD/	(in) 3,375	90.00		(gram)	PRODUCTIO	I safety a 1
12:00AM	VVASATOR/			6,190.0	6, 192.0	4.00		0.360	EAF/	3.373	90.00		23.00	N	
	WASATCH/			6,243.0	6,245.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO	
12:00AM														N	
9/24/2012 12:00AM	WASATCH/			6,446.0	6,447.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	WASATCH/			6,470.0	6,471.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	WASATCH/			6,487.0	6,488.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	WASATCH/			6,514.0	6,515.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	WASATCH/			6,607.0	6,608.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	:
	WASATCH/			6,628.0	6,629.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1 1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	WASATCH/	1		6,712.0	6,713.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1	WASATCH/			6,736.0	6,737.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	WASATCH/			6,791.0	6,792.0	3.00		0.360	EXP/	3.375	120.00	· · · · · · · · · · · · · · · · · · ·	23.00	PRODUCTIO N	:
	WASATCH/			6,817.0	6,818.0	3.00		0.360	EXP/	3.375	120.00	··· · · · · · · · · · · · · · · · · ·	23.00	PRODUCTIO N	
	WASATCH/			6,847.0	6,848.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	WASATCH/			6,899.0	6,900.0	3.00		0.360	EXP	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	WASATCH/			6,909.0	6,910.0	3.00		0.360	EXP	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	WASATCH/			6,943.0	6,944.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	:
1	WASATCH/			6,983.0	6,984.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	WASATCH/			7,022.0	7,023.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	WASATCH/			7,085.0	7,086.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1	WASATCH/			7,117.0	7,118.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	WASATCH/			7,145.0	7,146.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	<u> </u>

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S	MD Top (usft)	MD Base (usft)	Shot Density	Misfires/ Add. Shot	Diamete	Carr Type /Stage No	Carr Size	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Weight	Reason	Misrun
			(usft)			(shot/ft)		(in)		(in)			(gram)		
	WASATCH/	1		7,179.0	7,180.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
12:00AM														N	
	WASATCH/			7,196.0	7,197.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
12:00AM	<u> </u>		.i	1272										N	
9/24/2012 12:00AM	WASATCH/	1		7,254.0	7,255.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
9/24/2012 12:00AM	WASATCH/			7,280.0	7,281.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
9/24/2012 12:00AM	WASATCH/			7,295.0	7,296.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	WASATCH/			7,321.0	7,322.0	4.00		0.360	EXP/	3.375	90.00	e e e e e e e e e e e e e e e e e e e	23.00	PRODUCTIO	
12:00AM	WAOATOII/			7,021.0	7,022.0	7.00		. 0.000	, 12/47		00.00		20.00	N	
	WASATCH/			7,327.0	7,328.0	4.00		0.360	EXP/	3.375	90.00	en e	23.00	PRODUCTIO N	
	MESAVERDE/			7,355.0	7,356.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,385.0	7,387.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,454.0	7,455.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1	MESAVERDE/			7,539.0	7,540.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	1
	MESAVERDE/	-!		7,585.0	7,586.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,607.0	7,608.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1-1-1-1	MESAVERDE/			7,684.0	7,685.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1	MESAVERDE/			7,708.0	7,709.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,720.0	7,721.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,738.0	7,739.0	3.00		0.360	EXP/	3.375	120.00	i	23.00	PRODUCTIO	
1	MESAVERDE/			7,759.0	7,760.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,854.0	7,856.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	:
	MESAVERDE/			7,921.0	7,923.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1-11-11	MESAVERDE/			8,016.0	8,018.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	:

Date	Formation		1	CL@	CCL-T	MD Top	MD Base	Shot	Misfires/	Diamete	Carr	Type /Stage No	Carr	Phasing	Charge Desc/Charge	Charge	Reason	Misrun
	Reservoir			(usft)	S (usft)	(usft)	(usft)	Density (shot/ft)	Add. Shot	r (in)			Size (in)	(")	Manufacturer	Weight (gram)		
9/24/2012 12:00AM	MESAVERDE/	·	· I		(40.0)	8,065.0	8,066.0	3.00	<u></u>	0.360	EXP/		3.375	120.00			00 PRODUCTIO N	<u>. Lita - Ar</u>
9/24/2012 12:00AM	MESAVERDE/					8,072.0	8,073.0	3.00		0.360	EXP/		3.375	120.00		23.0	00 PRODUCTIO N	:
	MESAVERDE/					8,118.0	8,119.0	4.00		0.360	EXP/		3.375	90.00		23.0	00 PRODUCTIO N	
	MESAVERDE/					8,157.0	8,158.0	4.00		0.360	EXP/		3.375	90.00		23.0	00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/					8,214.0	8,215.0	4.00		0.360	EXP/		3.375	90.00		23.0	00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/					8,231.0	8,232.0	4.00		0.360	EXP/		3.375	90.00		23.0	00 PRODUCTIO N	
	MESAVERDE/					8,253.0	8,254.0	4.00		0.360	EXP/		3.375	90.00		23.0	00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/					8,310.0	8,311.0	4.00		0.360	EXP/		3.375	90.00		23.0	00 PRODUCTIO N	
	MESAVERDE/				•	8,517.0	8,519.0	3.00		0.360	EXP/		3.375	120.00		23.0	00 PRODUCTIO N	
	MESAVERDE/					8,563.0	8,564.0	3.00		0.360	EXP/		3.375	120.00		23.0	00 PRODUCTIO N	
	MESAVERDE/					8,618.0	8,619.0	3.00		0.360	EXP/		3.375	120.00		23.	00 PRODUCTIO N	
	MESAVERDE/					8,642.0	8,644.0	3.00		0.360	EXP/		3.375	120.00		23.0	00 PRODUCTIO N	
	MESAVERDE/					8,680.0	8,681.0	3.00		0.360	EXP/		3.375	120.00		23.	00 PRODUCTIO N	
	MESAVERDE/					8,697.0	8,698.0	3.00		0.360	EXP/		3.375	120.00		23.	00 PRODUCTIO N	
	MESAVERDE/					8,744.0	8,746.0	3.00		0.360	EXP/		3.375	120.00		23.	00 PRODUCTIO N	
	MESAVERDE/					8,784.0	8,785.0	3.00		0.360	EXP/		3.375	120.00		23.	00 PRODUCTIO N	
	MESAVERDE/					8,805.0	8,806.0	3.00		0.360	EXP/		3.375	120.00		23.	00 PRODUCTIO	
	MESAVERDE/					8,835.0	8,836.0	3.00		0.360	EXP/		3.375	120.00		23.	00 PRODUCTIO N	
	MESAVERDE/					8,855.0	8,856.0	3.00		0.360	EXP/		3.375	120.00		23.	00 PRODUCTIO N	
1	MESAVERDE/					8,869.0	8,870.0	3.00		0.360	EXP/		3.375	120.00		23.	00 PRODUCTIO N	
	MESAVERDE/					8,890.0	8,891.0	3.00		0.360	EXP/		3.375	120.00		23.	00 PRODUCTIO N	

Date	Formation/ CCL Reservoir (us		MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Reason Weight (gram)	Misrun
9/24/2012 12:00AM	MESAVERDE/	1	8,934.0	8,936.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	:
9/24/2012 12:00AM	MESAVERDE/		9,002.0	9,003.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/		9,030.0	9,032.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/		9,069.0	9,070.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/		9,087.0	9,088.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	:
9/24/2012 12:00AM	MESAVERDE/		9,119.0	9,120.0			0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/		9,148.0	9,149.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/		9,197.0	9,198.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/		9,205.0	9,206.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	:
9/24/2012 12:00AM	MESAVERDE/		9,239.0	9,240.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/		9,253.0	9,254.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/		9,268.0	9,269.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/		9,285.0	9,286.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
9/24/2012 12:00AM	MESAVERDE/	· .	9,301.0	9,302.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	: :

3 Plots

Vell: NBU 922-3	30L1CS BLACK			-			Spud Date: 5/22/2012				
Project: UTAH-L	JINTAH		Site: NBU	J 922-30L	PAD		Rig Name No: ROCKY MOUNTAIN WELL SE	RVICE			
vent: COMPLE	TION		Start Dat	e: 9/25/20	112		End Date: 10/23/2012	End Date: 10/23/2012			
	KB @4,989.00usft (al	oove Mean Se		7		/S/22/E/30	0/0/26/PM/S/2085/W/0/783/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)				
5/22/2012	-										
9/25/2012	12:00 - 13:30	1.50	FRAC	33	С	P	FILL SURFACE CSG. MIRU B&C QUICK TEST PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOS PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOS PSI. 1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN 102 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG	ST 59 ST 61			
9/28/2012	7:00 - 11:00	4.00	FRAC	37		Р	BLEED OFF PSI. SWIFN PERF STG 1)PU 3 1/8 EXP GUN, 23 GM, .36 SIZE. 90 DEG PHASING. RIH PERF AS PER DESIGN. POOH. SWIFW				
10/1/2012	6:30 - 6:45 6:45 - 17:30	0.25 10.75	FRAC FRAC	48 36	В	P P	HSM, REVIEW FRAC PERF & FRAC FOLLOWING WELL AS PER DI W/ 30/50 MESH SAND & SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLIUD, SAND AND CHEMICL VOLUME PUM'D				
							FRAC STG #1] WHP=1,750,#, BRK DN PERFS=3,559#, @=4.6 BPM, INJ RT=39.8, IN PSI=4,375#, INITIAL ISIP=2,500#, INITIAL FG= FINAL ISIP=2,782#, FINAL FG=.74, AVERAG RATE=47.8, AVERAGE PRESSURE=5,401#, N RATE=53.2, MAX PRESSURE=5,949#, NET PRESSURE INCREASE=282#, 23/24 96% CA PERFS OPEN. X OVER TO WIRE LINE	:.71, E 1/AX			
10/2/2012	6:45 - 7:00 7:00 - 7:45	0.25 0.75	FRAC FRAC	48 46	E	P Z	PERF STG #2] P/U RIH W/ HALIBURTON 8K (PERF GUN, SET CBP @=9,138', PERF MESA USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. / PERSAY IN PROCEDURE, X OVER TO FRAC SWIFN. HSM, PLACEMENT, GOOD COMMINICATION PROBLEMS W/ COMPUTERS	VERDE AS CREW			

11/12/2012

Operation Summary Report

Well: NBU 922-30L1CS BLACK		Spud Date: 5/22/2012
Project: UTAH-UINTAH	Site: NBU 922-30L PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION	Start Date: 9/25/2012	End Date: 10/23/2012

Active Datum: RKB @4,989.00usft (above Mean Sea

UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2085/W/0/783/0/0

Level)

Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
	7:45	- 17:30	9.75	FRAC	36	В	Р	FRAC STG #2] WHP=1,942#, BRK DN
								PERFS=4 685#, @=4.7 BPM, INJ RT=50.7, INJ

PERFS=4,685#, @=4.7 BPM, INJ RT=50.7, INJ PSI=4,802#, INITIAL ISIP=2,430#, INITIAL FG=.71, FINAL ISIP=2,738#, FINAL FG=.74, AVERAGE RATE=50.7, AVERAGE PRESSURE=4,902#, MAX RATE=51.2, MAX PRESSURE=6,038#, NET PRESSURE INCREASE=308#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE

PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,921', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW

FRAC STG #3] WHP=1,948#, BRK DN
PERFS=3,261#, @=5.1 BPM, INJ RT=52.8, INJ
PSI=4,658#, INITIAL ISIP=2,212#, INITIAL FG=.69,
FINAL ISIP=2,510#, FINAL FG=.72, AVERAGE
RATE=52.6, AVERAGE PRESSURE=4,774#, MAX
RATE=53.3, MAX PRESSURE=5,558#, NET
PRESSURE INCREASE=298#, 24/24 100% CALC
PERFS OPEN. X OVER TO WIRE LINE

PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,728', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW

FRAC STG #4] WHP=377#, BRK DN PERFS=3,892#, @=4.9 BPM, INJ RT=52.8, INJ PSI=4,795#, INITIAL ISIP=2,038#, INITIAL FG=.68, FINAL ISIP=2,495#, FINAL FG=.73, AVERAGE RATE=52.7, AVERAGE PRESSURE=4,721#, MAX RATE=53.2, MAX PRESSURE=5,980#, NET PRESSURE INCREASE=457#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE

PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,341', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE. X OVER TO FRAC CREW.

FRAC STG #5] WHP=645#, BRK DN PERFS=4,257#, @=5.1 BPM, INJ RT=52.6, INJ PSI=4,491#, INITIAL ISIP=2,492#, INITIAL FG=.74, FINAL ISIP=2,495#, FINAL FG=.74, AVERAGE RATE=52.5, AVERAGE PRESSURE=4,640#, MAX RATE=53.2, MAX PRESSURE=5,895#, NET PRESSURE INCREASE=3#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE

PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,103', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW.

3:18:14PM

US ROCKIES REGION Operation Summary Report Spud Date: 5/22/2012 Well: NBU 922-30L1CS BLACK Rig Name No: ROCKY MOUNTAIN WELL SERVICE Site: NBU 922-30L PAD Project: UTAH-UINTAH End Date: 10/23/2012 **Event: COMPLETION** Start Date: 9/25/2012 UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2085/W/0/783/0/0 Active Datum: RKB @4,989.00usft (above Mean Sea Level) Operation P/U Code Phase Sub MD From Date Time Duration Code (usft) Start-End (hr) SWIFN. P HSM, WORKING AROUND WIRE LINE 6:45 FRAC 48 - 7:00 10/3/2012 0.25

11/12/2012 3:18:14PM

3

	Site: NBU 922-30L PAD Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3 Start Date: 9/25/2012 End Date: 10/23/2012 End Date: 10/23/2012 UWI: NW/SW/0/9/S/22/E/30/0/0/26/PM/S/2085/W/0/783/0/0 Comparison of the comparison							
			Spud Date: 5/22/2012 Site: NBU 922-30L PAD Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3 Start Date: 9/25/2012 End Date: 10/23/2012 End Date: 10/23/2					
Well: NBU 922-30L1C	S BLACK		545169		222	**************************************	Spud Date: 5/22	2/2012
Project: UTAH-UINTAH			Site: NBU	922-30L	PAD			
Event: COMPLETION	vent: COMPLETION ctive Datum: RKB @4,989.00usft (above Mean evel) Data Time Duration Start-End (hr)				12			End Date: 10/23/2012
Active Datum: RKB @ Level)	4,989.00usft (at	ove Mean Sea	э	UWI: NV	V /SW/0/9/	/S/22/E/3	80/0/0/26/PM/S/20	85/W/0/783/0/0
Date			Phase	Code	A 5 10 10 10 10 10 10	P/U		Operation
7:0	0 - 17:00	10.00	FRAC	36	В	P		PERFS=3,724#, @=4.7 BPM, INJ RT=50.9, INJ PSI=4,088#, INITIAL ISIP=1,723#, INITIAL FG=.66, FINAL ISIP=2,429#, FINAL FG=.74, AVERAGE RATE=50.8, AVERAGE PRESSURE=4,411#, MAX RATE=51.4, MAX PRESSURE=4,600#, NET PRESSURE INCREASE=706#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,790', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #7] WHP=282#, BRK DN PERFS=1,481#, @=4.9 BPM, INJ RT=50.3, INJ PSI=5,211#, INITIAL ISIP=1,027#, INITIAL FG=.57, FINAL ISIP=2,128#, FINAL FG=.72, AVERAGE RATE=49.3, AVERAGE PRESSURE=4,412#, MAX RATE=51.1, MAX PRESSURE=5,776#, NET PRESSURE INCREASE=1,101#, 15/24 63% CALC PERFS OPEN.

PERF STG #8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,485', PERF MESAVERDE /WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW

FRAC STG #8] WHP=438#, BRK DN PERFS=2,001#, @=4,7 BPM, INJ RT=50.7, INJ PSI=4,970#, INITIAL ISIP=1,119#, INITIAL FG=.59, FINAL ISIP=2,187#, FINAL FG=.73, AVERAGE RATE=50.6, AVERAGE PRESSURE=4,440#, MAX RATE=51.2, MAX PRESSURE=5,725#, NET PRESSURE INCREASE=1,068#, 16/24 67% CALC PERFS OPEN. X OVER TO WIRE LINE

PERF STG #9] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,311', PERF WASATCH USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW [MISSFIRE PLUG SET BOOTTOM 4 GUNS SHOT AND WENT SHORT, POOH FIX PROBLEM RUN BACK IN WELL]

FRAC STG #9] WHP=#, BRK DN PERFS=#, @= BPM, INJ RT=, INJ PSI=#, INITIAL ISIP=#, INITIAL FG=., FINAL ISIP=#, FINAL FG=., AVERAGE RATE=, AVERAGE PRESSURE=#, MAX RATE=, MAX PRESSURE=#, NET PRESSURE INCREASE=#, CALC PERFS OPEN. X OVER TO WIRE LINE

PERF STG #10] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,053', PERF WASATCH

					Opera	ition S	Summa	ıry Report
Well: NBU 922-3	OL1CS E	BLACK						Spud Date: 5/22/2012
Project: UTAH-U				Site: NBL	J 922-30L	. PAD		Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLE	TION			Start Dat	e: 9/25/20	012		End Date: 10/23/2012
Active Datum: R Level)	KB @4,9	94,989.00usft (above Mean Sea					9/S/22/E/3	0/0/0/26/PM/S/2085/W/0/783/0/0
Date	175/4/29/20	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/Ü	MD From Operation (usft)
10/4/2012	6:30	- 6:45 - 14:00	0.25 7.25	FRAC	48 36		P P	
								X OVER TO WIRE LINE P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @=6,019'
10/22/2012	7:00	- 7:15	0.25	DRLOUT	48		Р	TOTAL FLUID PUMP'D=12,268 TOTAL SAND PUMP'D=296,757# HSM-JSA

11/12/2012 3:18:14PM

5

				U	SKOC	KIES RE	SION
				Opera	ition S	Bummai	y Report
Well: NBU 922-3	0L1CS BLACK	<u> </u>			Principle State Principle	regie _{in de} gen in de Reserver,	Spud Date: 5/22/2012
Project: UTAH-U	INTAH		Site: NBI	J 922-30L	. PAD		Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLE	Start Dat	e: 9/25/20	012		End Date: 10/23/2012		
Active Datum: RI Level)	KB @4,989.00usft	(above Mean Se	a	UWI: N	W/SW/0/	9/S/22/E/30	0/0/26/PM/S/2085/W/0/783/0/0
- Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
	7:15 - 15:00	7.75	DRLOUT	44	С	Р	RDMO 922-30L4BS, MIRU, NDWH, NUBOP, PU 3 7/8" BIT & POBS W/ XN SN, RIH W/ 189 JTS 2 3/8" L-80 OFF FLOAT TAG FILL @ 6,004', RU PWR SWVL, BRK CIRC PRESS TEST BOP TO 3,000 PSI, LOST 0 PSI IN 15 MIN.
							C/O 15' SAND TAG PLUG #1 @ 6,019', DRL HAL 8K CBP IN 5 MIN, 0 PSI INC, FCP 0 PSI, RIH TAG FILL @ 6,255'.
							C/O 20' SAND TAG PLUG #2 @ 6,275', DRL HAL 8K CBP IN 6 MIN, 100 PSI INC, FCP 50 PSI, RIH TAG FILL @ 6,707'.
							C/O 60' SAND TAG PLUG #3 @ 6,767', DRL HAL 8K CBP IN 4 MIN, 100 PSI INC, FCP 100 PSI, RIH TAG FILL @7,023'.
							C/O 30' SAND TAG PLUG #4 @ 7,053', DRL HAL 8K CBP IN 4 MIN, 0 PSI INC, FCP 100 PSI, CIRC CLEAN, SWIFN.
10/23/2012	7:00 - 7:15	0.25	DRLOUT	48		P	HSM-JSA

Well: NBU 922-3	01 1CC 1	BLACK			ye-rayalifedi	<u> </u>		Spud Date: 5/2	22/2012
Project: UTAH-U		JLAOK		Site: NBU	922-301	- PAD		Opad Date: 072	Rig Name No: ROCKY MOUNTAIN WELL SERVICE
Event: COMPLE	TION			Start Date	: 9/25/20	012			End Date: 10/23/2012
Active Datum: RI		989.00usft (at	oove Mean Se				/9/S/22/E/	30/0/0/26/PM/S/20	085/W/0/783/0/0
Level)	I Restrictions of				ingsegge	Transcension			- 24
Date		Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15	- 13:00	5.75	DRLOUT	44	С	P		SICP 900 PSI, OPEN WELL CONT PU TBG RIH TAG FILL @ 7,286'.
									C/O 25' SAND TAG PLUG #5 @ 7,311', DRL HAL 8K CBP IN 4 MIN, 0 PSI INC, FCP 100 PSI, RIH TAG FILL @ 7,425'.
									C/O 60' SAND TAG PLUG #6 @ 7,485', DRL HAL 8K CBP IN 5 MIN, 200 PSI INC, FCP 200 PSI, RIH TAG FILL @ 7,760'.
									C/O 30' SAND TAG PLUG #7 @ 7,790', DRL HAL 8K CBP IN 6 MIN, 300 PSI INC, FCP 300 PSI, RIH TAG FILL @ 8,078'.
									C/O 25' SAND TAG PLUG #8 @ 8,103', DRL HAL 8K CBP IN 6 MIN, 100 PSI INC, FCP 300 PSI,RIH TAG FILL @ 8,306'.
									C/O 35' SAND TAG PLUG #9 @ 8,341', CRL HAL 8K CBP IN 4 MIN, 300 PSI INC, FCP 400 PSI, RIH TAG FILL @ 8,698'.
			•						C/O 35' SAND TAG PLUG #10 @ 8,728', DRL HAL 8K CBP IN 5 MIN, 400 PSI INC, FCP 500 PSI, RIH TAG FILL @ 8,891'.
									C/O 30' SAND TAG PLUG #11 @ 8,921', DRL HAL 8K CBP IN 5 MIN, 400 PSI INC, FCP 600 PSI, RIH TAG FILL @ 9,088'.
									C/O 50' SAND TAG PLUG #12 @ 9,138', DRL HAL 8K CBP IN 6 MIN, 200 PSI INC, FCP 600 PSI, RIH TAG FILL @ 9,430' (128' BELOW BTM PERF), CIRC CLEAN, RD PWR SWVL, POOH LD 17 JTS TBG, LAND TBG W/ 279 JTS 2 3/8" L-80 EOT @ 8,913.66', RD FLOOR & TBG EQUIP, NDBOP, NUWH, POBS @ 1,700 PSI, PRESS TEST FLOWLINE BETWEEN WELLHEAD & HAL 9,000 TO 3,000 PSI, LET BIT FALL 20 MIN TURN OVER TO FBC. RDMO.
									KB-18' HANGER83' 279 JTS 2 3/8" L-80-8,892.63' POBS W/ XN SN-2.20' EOT @ 8,913.66'
									DEL 313 JTS USED 279 JTS RET 34 JTS
									TWTR=12,640 BBLS TWR=2,977 BBLS TWLTR=9 663 BBLS

		Operation Sum	
Well: NBU 922-30L1CS BLACK			Spud Date: 5/22/2012
Project: UTAH-UINTAH	Site: NBU	922-30L PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION	Start Date	9/25/2012	End Date: 10/23/2012
Active Datum: RKB @4,989.00usft (above Mean Stevel)	Sea	UWI: NW/SW/0/9/S/2	2/E/30/0/0/26/PM/S/2085/W/0/783/0/0
Date Time Duration Start-End (hr)	Phase	Code Sub P	/U MD From Operation (usit)
13:00 - 13:00 0.00	DRLOUT	50	WELL TURNED TO SALES @ 1300 HR ON 10/23/2012. 3153 MCFD, 1920 BWPD, FCP 2250#,

10/24/2012

7:00 -

50

10/23/2012: 3153 MCFD, 1920 BWPD, PCP 2250#, FTP 2225#, 20/64" CK. WELL IP'D ON 10/24/12 - 2759 MCFD, 1152 BWPD, 0

BOPD, CP 2423#, FTP 1900#, LP 83#, 24 HRS, CK

20/64

11/12/2012 3:18:14PM

Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: UINTAH_NBU 922-30L PAD Well: NBU 922-30L1CS

Weilbore: NBU 922-30L1CS Section:

+N/-S

0.00

Design: NBU 922-30L1CS (wp01)

Latitude: 40.005499 Longitude: -109.487175 GL: 4971.00

+E/-W

0.00

KB: 4971' GL + 18' RKB @ 4989.00ft (SST 54)

FORMATION TOP DETAILS

TVDPath MDPath 4652.00 5252.00 4654.98 5254.98 7279.00 9501.00 7282.02 9504.05 Formation WASATCH top of cylinder MESAVERDE

		WELL DETAILS: N	BU 922-30L1CS		
,	Northing 14531642.75	Ground Level: Easting 2064070.53	4971.00 Latittude 40.005499	Longitude -109.487175	Slot

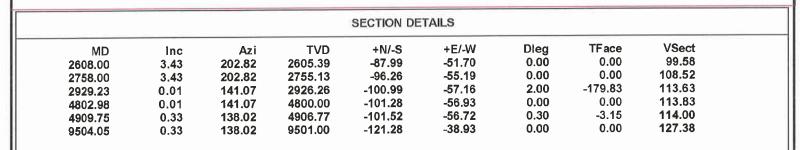
	CASING DI	TAILS	
TVD	MD	Name	Size
2628.86	2631.51	8-5/8"	8-5/8

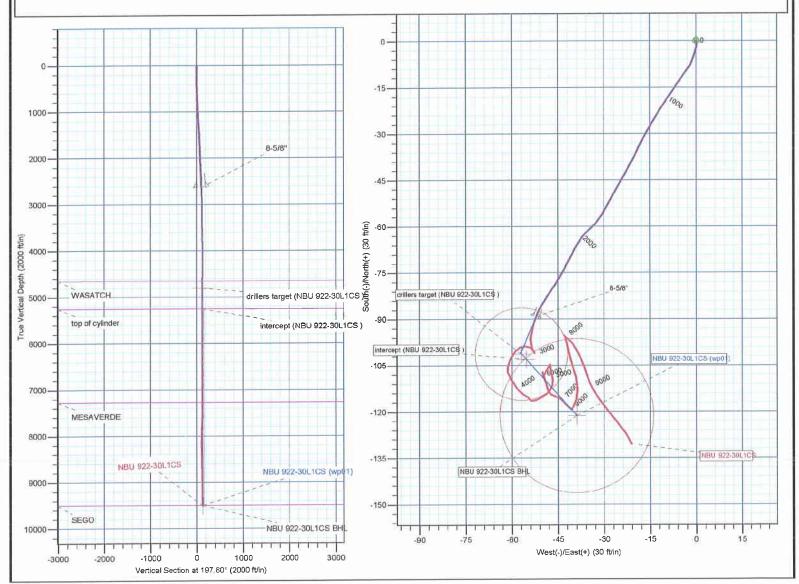


Magnetic Field Strength: 52238.7snT Dip Angle: 65.85° Date: 5/29/2012 Model: IGRF2010

DESIGN TARGET D	ETAILS
------------------------	--------

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
drillers target (NBU 922-30L1CS)	4800.00	-101,28	-56.93	14531540.52	2064015.33	40.005221	-109.487378	Circle (Radius: 15.00)
	5252.00	-103.00	-55.38	14531538.82	2064016.91	40.005216	-109.487373	Point `
intercept (NBU 922-30L1CS)		-121.28	-38.93	14531520.82	2064033.66	40,005166	-109.487314	Circle (Radius: 25.00)
NBU 922-30L1CS BHL	9501.00	-121.20	-30,00	14001020.02	200-1000.00	40,000100	1001107011	0.10.0 (11.00.00)





US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N UINTAH_NBU 922-30L PAD NBU 922-30L1CS

NBU 922-30L1CS

Design: NBU 922-30L1CS

Standard Survey Report

26 July, 2012

Survey Report

US ROCKIES REGION PLANNING Company:

UTAH - UTM (feet), NAD27, Zone 12N **Project**:

UINTAH NBU 922-30L PAD Site:

NBU 922-30L1CS Well: NBU 922-30L1CS

Wellbore: NBU 922-30L1CS Design:

Local Co-ordinate Reference:

Well NBU 922-30L1CS

4971' GL + 18' RKB @ 4989.00ft (SST 54) TVD Reference: 4971' GL + 18' RKB @ 4989.00ft (SST 54) MD Reference:

Mean Sea Level

True North Reference:

Survey Calculation Method: Minimum Curvature

Database: edmp

UTAH - UTM (feet), NAD27, Zone 12N **Project**

Map System: Geo Datum:

Site

Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS)

Zone 12N (114 W to 108 W) Map Zone:

UINTAH NBU 922-30L PAD

Site Position: From:

Lat/Long Easting: 0.00 ft Slot Radius: **Position Uncertainty:**

14,531,670.05 usft 2,064,112.37 usft

System Datum:

Latitude: 13-3/16 "

Longitude: **Grid Convergence:**

40 005572 -109.487024 0.97

Well NBU 922-30L1CS

0.00 ft +N/-S Well Position

0.00 ft +E/-W

Northing: Easting:

14,531,642.75 usft 2,064,070.53 usft

Latitude: Longitude:

40.005499 -109.487175

Position Uncertainty

0.00 ft Wellhead Elevation:

Northing:

ft Ground Level:

4,971.00 ft

NBU 922-30L1CS Wellbore

Dip Angle **Field Strength** Sample Date Declination **Model Name** Magnetics (nT) (°) (°) 52.239 5/29/2012 10.95 65.85 IGRF2010

NBU 922-30L1CS Design

Audit Notes:

Version:

1.0

Phase:

ACTUAL

15.00

Tie On Depth:

9.00

Vertical Section:

Depth From (TVD) (ft)

+N/-S (ft)

0.00

+E/-W (ft) 0.00 Direction (°)

189.19

Date 7/25/2012 **Survey Program**

> From To (ft) (ft)

Survey (Wellbore)

Tool Name

Description

MWD - STANDARD MWD 239.00 2,608.00 Survey #1 (NBU 922-30L1CS) MWD MWD - STANDARD 9,520.00 Survey #2 (NBU 922-30L1CS) 2,668.00

Measured		A	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
Depth (ft)	inclination (°)	Azimuth (°)	(ft)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
9,00	0.00	0.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00
239.00	0.18	269.53	239.00	0.00	-0.36	0.06	0.08	0.08	0.00
329.00	0.26	155.80	329.00	-0.19	-0.42	0.25	0.41	0.09	-126.37
421.00	0.35	100.78	421.00	-0.43	-0.06	0.44	0.32	0.10	-59.80
516.00	1.41	190.34	515.99	-1.64	0.02	1.61	1.53	1.12	94.27
611.00	1.41	197.46	610.96	-3.90	-0.54	3.94	0.18	0.00	7.49
706,00	1.58	199.04	705.93	-6.26	-1.32	6.39	0.18	0.18	1.66
802.00	2.55	216.44	801.86	-9.22	-3.02	9.59	1.19	1.01	18.13
896.00	3.08	212.84	895.75	-13.03	-5.63	13.76	0.59	0.56	-3.83
989.00	3.34	215.54	988,60	-17.33	-8.56	18.48	0,32	0,28	2.90

Survey Report

Company:

US ROCKIES REGION PLANNING

Project

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: UINTAH_NBU 922-30L PAD

Well: Wellbore: NBU 922-30L1CS

Design:

NBU 922-30L1CS NBU 922-30L1CS Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Database:

Well NBU 922-30L1CS

4971' GL + 18' RKB @ 4989.00ft (SST 54) 4971' GL + 18' RKB @ 4989.00ft (SST 54)

True

Minimum Curvature

edmp

			Vertical			Vertical	Dogleg	Build	Turn
Measured Depth			veruca: Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
Depui (ft)	inclination (°)	Azimuth (°)	(ft)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
	Signal di Namadan			o-koštātār sakultutā			PATAWOLIUS SE		
1,083.00	3.54	212.09	1,082.44	-22.02	-11.70	23.60	0.31	0.21	-3.67
1,177.00	3.87	210.29	1,176.24	-27.22	-14.84	29.24	0.37	0.35	-1.91
1,272.00	3.25	208.09	1,271.06	-32.36	-17.72	34.78	0.67	-0.65	-2.32
1,366.00	3.34	205.90	1,364.90	-37.17	-20.17	39.92	0.16	0.10	-2.33
1,460.00	3.34	210.29	1,458.74	-42.00	-22.75	45.10	0.27	0.00	4.67
1,556.00	3.69	209.24	1,554.56	-47.11	-25.67	50.61	0.37	0.36	-1.09
1,649.00	3.25	208,97	1,647.39	-52,03	-28.41	55,90	0.47	-0.47	-0.29
1,745.00	2.29	210.03	1,743.28	-56.07	-30.69	60.25	1.00	-1.00	1.10
		221.28	1,837.21	-58.84	-32.63	63.29	0.64	-0.47	11.97
1,839,00 1,932.00	1.85 1.93	221.26	1,930.16	-60.98	-34.81	65.76	0.30	0.09	8,88
,				20.11	07.07	00.54	0.40	0.30	0.14
2,026.00	2.29	221.89	2,024.10	-63.41	-37.27	68.54	0.49	0.38 0.56	-8.14 -19.28
2,119.00	2.81	203.96	2,117.01	-66.87	-39.43	72.31	1.02 0.34	-0.09	-19.20 6.77
2,210.00	2.73	210.12	2,207.90	-70.79	-41.43	76.49		0.09	-4.40
2,302.00	2.81	206.07	2,299.80	-74.71 -70.50	-43.52	80.70	0.23		10.73
2,396.00	2.74	216.16	2,393.69	-78.59	-45.86	84.90	0.52	-0.07	10.73
2,488.00	2.90	213.54	2,485.57	-82.31	-48.44	88.98	0.22	0.17	-2.85
2,581.00	3.25	209.06	2,578.44	-86 .57	-51.02	93.61	0.46	0.38	-4,82
2,608.00	3.43	202.82	2,605.39	-87.99	-51.70	95.11	1.50	0.67	-23.11
TIE ON									
2,668.00	3.59	197.13	2,665.28	-91.43	-52,95	98.72	0.64	0.27	-9.48
FIRST MWD	SURVEY								
2,763.00	2.63	185.36	2,760.14	-96.45	-54.03	103.84	1.21	-1.01	-12.39
2,858.00	1.63	149.23	2,855.08	-99.78	-53.55	107.05	1.71	-1.05	-38.03
2,954.00	0.25	95.73	2,951.07	-100.97	-52.64	108.08	1.56	-1.44	-55.73
3,050.00	1.00	326.73	3,047.06	-100.29	-52.89	107.45	1.22	0.78	-134,38
3,145.00	0.91	302.82	3,142.05	-99.19	-53,98	106.54	0.43	-0.09	-25.17
3,240.00	1.12	269.01	3,237.03	-98.80	-55.54	106.40	0.66	0.22	-35.59
0.000.00	4.20	0.46.20	3,333.01	-99.25	-57.48	107.16	0.53	0.19	-23.64
3,336.00	1.30	246.32	-	-100.62	-59.20	108.78	0.71	0.15	-29.57
3,431.00	1.44	218.23 203,86	3,427.99 3,523.95	-100.02	-60.48	111.10	0.41	0.13	-14.97
3,527.00	1.56	192.73	3,523.95 3,618.92	-102.77	-61.31	113.75	0.36	0.14	-11.72
3,622.00 3.716.00	1.69 0.56	158.73	3,712.90	-103.31	-61.45	115.73	1.35	-1.20	-36,17
3,710.00	0,00	100.73	0,7 12,00						
3,812.00	1.00	154.23	3,808.89	-108.29	-60.91	116,62	0.46	0.46	-4.69
3,907.00	1.31	149.11	3,903.87	-109.96	-60.00	118.13	0.34	0.33	-5.39
4,003.00	1.94	145.11	3,999.83	-112.24	-58.50	120.14	0.67	0.66	-4.17
4,098.00	1.69	124.48	4,094.78	-114.35	-56.43	121.89	0.73	-0.26	-21.72
4,193.00	0.69	109.73	4,189.76	-115.34	-54.73	122.60	1.09	-1.05	-15.53
4,288.00	0.56	186.11	4,284.76	-115.99	-54.25	123.16	0.82	-0.14	80.40
4,384.00	0.75	88.86	4,380.75	-116.45	-53.67	123.52	1.03	0.20	-101.30
4,478.00	1.19	73.73	4,474.74	-116.16	-52.12	122,99	0.54	0.47	-16.10
4,573.00	1.31	49.36	4,569.72	-115.18	-50.34	121.74	0.57	0.13	-25.65
4,668.00	1,00	69.23	4,664.70	-114.18	-48.75	120.49	0.53	-0.33	20,92
									-55.33

Survey Report

Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: UINTAH_NBU 922-30L PAD

Wellbore: Design: NBU 922-30L1CS NBU 922-30L1CS NBU 922-30L1CS Local Co-ordinate Reference:

TVD Reference:
MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well NBU 922-30L1CS

4971' GL + 18' RKB @ 4989.00ft (SST 54) 4971' GL + 18' RKB @ 4989.00ft (SST 54)

True

Minimum Curvature

edmp

Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
4,858.00	0.94	33,61	4,854.67	-111.34	-46.99	117.41	0.43	-0.27	18.62
4,953.00	1.38	347.11	4,949.65	-109.58	-46.81	115.64	1.05	0.46	-48.95
5,049.00	1.00	349.86	5,045.63	-107.62	-47.22	113.78	0.40	-0.40	2.86
5,143.00	0.69	346.73	5,139.62	-106.27	-47.49	112.49	0.33	-0.33	-3.33
5,238.00	0.44	354.86	5,234.61	-105.35	-47.66	111.60	0.28	-0.26	8.56
5,334.00	0.25	359.48	5,330.61	-104.77	-47.69	111.04	0.20	-0.20	4.81
5,429.00	0.06	163.48	5,425.61	-104.61	-47.68	110.88	0.32	-0.20	172.63
5,525.00	0.44	207.86	5,521.61	-104.98	-47.84	111.27	0.42	0.40	46.23
5,620.00	0.63	213.11	5,616.61	-105.74	-48.29	112.10	0.21	0.20	5.53
5,716.00	0.81	211.61	5,712.60	-106.76	-48.94	113.21	0.19	0.19	-1.56
•	0.81	202.73	5,807.59	-108.75	-49.59	114.59	0.20	0.14	-9.35
5,811.00 5,906.00	0.94	353.61	5,902.58	-108.41	-49.93	114.99	1.41	-0.53	158.82
6,002.00	0.44	345.86	5,998.58	-107.69	-50.06	114.30	0.06	0,00	-8.07
6,002.00	0.44	345.66 359.61	6,093.58	-107.09	-50.15	113.81	0.27	-0.26	14.47
		470.00	e 400 E0	407.40	E0 15	113.76	0.34	-0.06	186.05
6,192.00	0.13	176.36	6,188.58	-107.13	-50.15 -49.99	114.22	0.40	0.39	-18.95
6,287.00	0.50	158.36	6,283.58	-107.62				0.39	7.29
6,383.00	0.69	165.36	6,379.57	-108.57	-49.69	115.11	0.21	0.20	-4.08
6,478.00	0.88	161.48	6,474.56	-109.81	-49.31	116.28	0.21		-1.32
6,573.00	0.94	160,23	6,569.55	-111.24	-48.81	117.60	0.07	0.06	-1.32
6,668.00	1.31	167.61	6,664.53	-113.03	-48.32	119.30	0.42	0.39	7.77
6,764.00	0.94	112.31	6,760.52	-114.40	-47.35	120.50	1.14	-0.39	-57.60
6,859.00	1.13	115.36	6,855.50	-115.10	-45.79	120.93	0.21	0.20	3.21
6,954.00	0.75	118.98	6,950.49	-115.80	-44.40	121.40	0.40	-0.40	3.81
7,049.00	1.44	138.61	7,045.47	-117.00	-43.06	122.37	0.82	0.73	20.66
7,145.00	1.31	135.61	7,141.44	-118.69	-41.50	123.79	0.15	-0.14	-3.13
7,239.00	0.19	0.98	7,235.44	-119.30	-40.74	124.27	1.54	-1.19	-143.22
7,335.00	1.13	39.23	7,331.43	-118.41	-40.14	123.30	1.03	0.98	39.84
7,430.00	1.94	13.61	7,426.40	-116.12	-39.17	120.88	1,10	0.85	-26.97
7,525.00	2.19	3.36	7,521.33	-112.74	-38.69	117.47	0.47	0.26	-10.79
7,621.00	2.69	343.36	7,617.25	-108.75	-39.22	113.62	1.02	0.52	-20.83
7,717.00	2,56	341.61	7,713.15	-104.56	-40.54	109.69	0.16	-0.14	-1.82
7,811.00	2.06	347.48	7,807.07	-100.92	-41.57	106.26	0.59	-0.53	6.24
7,907.00	1.88	351.98	7,903.01	-97.68	-42.17	103.16	0.25	-0.19	4.69
8,002.00	0.81	320.61	7,997.99	-95.61	-42.81	101.22	1.33	-1.13	-33.02
8,097.00	0.19	137.60	8,092.99	-95.21	-43.13	100.88	1.05	-0.65	186.31
8,193.00	0.44	134.48	8,188.98	-95.59	-42.76	101.19	0.26	0.26	-3.25
8,288.00	0.63	127.86	8,283.98	-96.16	-42.09	101.65	0.21	0.20	-6.97
8,383.00	0.88	135.48	8,378.97	-97.00	-41.16	102.33	0.28	0.26	8.02
8,479.00	1.06	144.11	8,474.96	-98.25	-40.13	103.40	0.24	0.19	8.99
8,574.00	1.44	152.86	8,569.93	-100.02	-39.07	104.98	0.45	0,40	9,21
8,670.00	1.75	154.23	8,665.90	-102.42	-37.88	107.15	0.33	0.32	1.43
8,765.00	1.73	158.48	8,760.85	-105.17	-36.68	109.68	0.20	0.14	4.47
8,860.00	1.56	164.86	8,855.81	-103.17	-35,77	112.20	0.39	-0.34	6.72
8,955.00	1.69	156.73	8,950.77	-110.41	-34,88	114.56	0.28	0.14	-8.56

Survey Report

Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site:

UINTAH_NBU 922-30L PAD

Well:

NBU 922-30L1CS

Design:

NBU 922-30L1CS

Local Co-ordinate Reference:

Survey Calculation Method:

Well NBU 922-30L1CS

TVD Reference:

4971' GL + 18' RKB @ 4989.00ft (SST 54) 4971' GL + 18' RKB @ 4989.00ft (SST 54)

MD Reference:

True

North Reference:

Minimum Curvature

Wellbore: NBU 922-30L1CS

Database:

edmp

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth in (ft)	clination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
9,050.00	2.13	150.23	9,045.72	-113.23	-33.45	117.11	0.52	0.46	-6.84
9,146.00	2.50	142.73	9,141.64	-116.44	-31.29	119.94	0.50	0.39	-7.81
9,242.00	2.50	142.37	9,237.55	-119.76	-28.75	122.82	0.02	0.00	-0.38
9,337.00	2.44	140.23	9,332.46	-122.96	-26.19	125.56	0.12	-0.06	-2.25
9,432.00	2.75	143.98	9,427.36	-126.36	-23.55	128.50	0.37	0.33	3.95
9,460.00	3.00	147.23	9,455.33	-127.52	-22.76	129.52	1.07	0.89	11.61
LAST MWD SUR	VEY								
9,520.00	3.54	154.19	9,515.23	-130.50	-21.11	132.20	1.12	0.90	11.60

Design Annotations				
Measured	Vertical	Local Co	ordinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment of the second s
2,608.00	2,605.39	-87.99	-51.70	TIE ON
2,668.00	2,665.28	-91.43	-52.95	FIRST MWD SURVEY
9,460.00	9,455.33	-127.52	-22.76	LAST MWD SURVEY
9,520.00	9,515.23	-130.50	-21.11	PROJECTION TO TD

Checked By:	Approved By:	Date: